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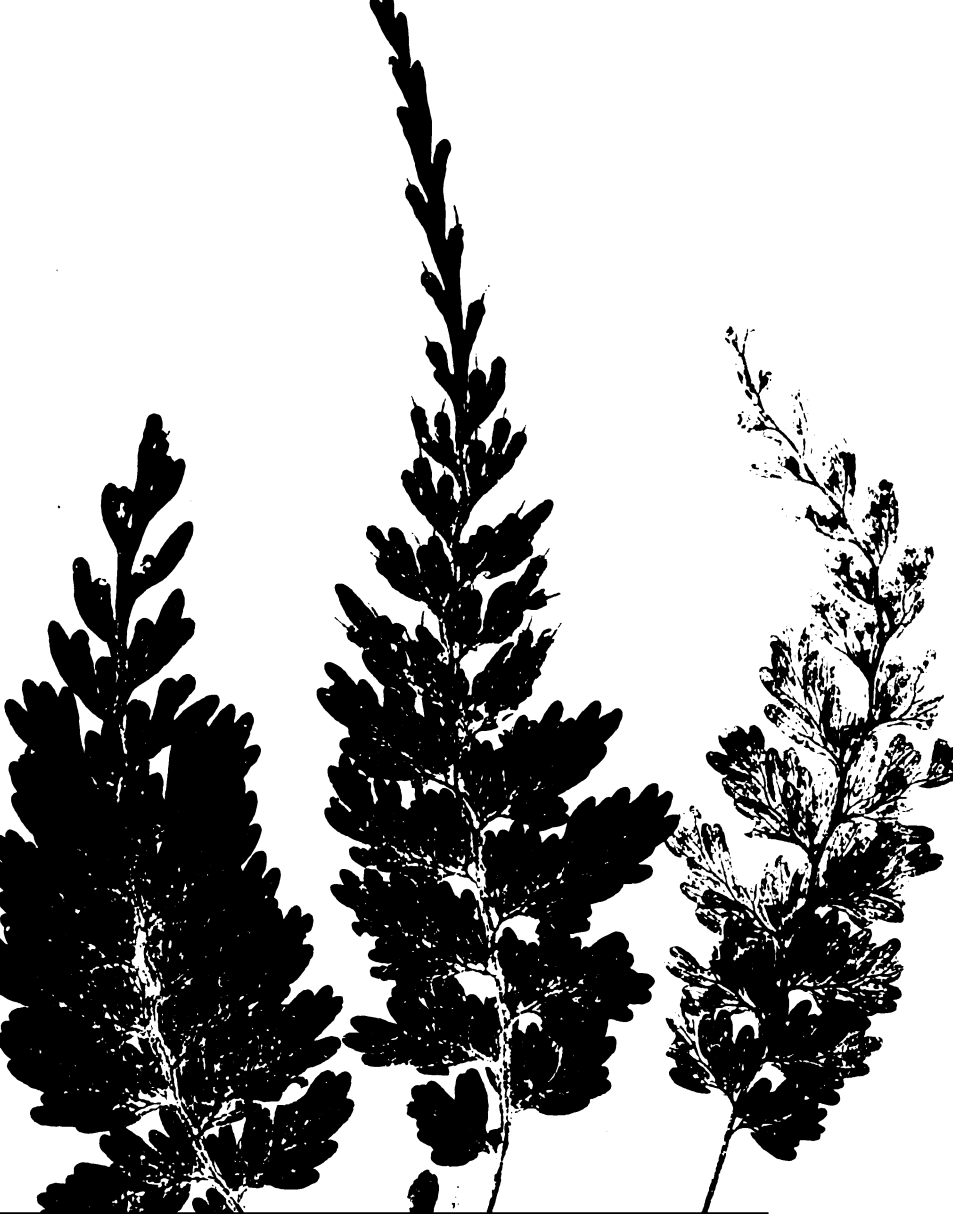
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*A synopsis of
the Queensland flora*

Frederick Manson Bailey



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A SYNOPSIS
OF
THE QUEENSLAND FLORA;
CONTAINING BOTH THE
PHÆNOGAMOUS AND CRYPTOGAMOUS PLANTS.

BY
FREDK. MANSON BAILEY, F.L.S.,
COLONIAL BOTANIST.

FIRST SUPPLEMENT.

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PREFACE.

PREFATORY remarks are scarcely required to works like the present, but the Author gladly takes advantage of the opportunity offered to thank all those who have assisted in its production by forwarding specimens of plants or notes on their uses.

To Baron von Mueller his thanks are especially due, for kindly forwarding to him accounts of all the fresh Queensland plants which have been brought under his notice.

It will be observed that large additions have been made to our Cryptogamic Flora. For the determinations of these the Author is indebted to various specialists. The new Lichens have been described and the plates furnished by Dr. Charles Knight, a well-known lichenologist, the drawings having been made on transfer paper to allow of their being printed at the Government Lithographic Office.

F. M. B.

31st December, 1885.

SUPPLEMENT

TO THE

SYNOPSIS OF THE QUEENSLAND FLORA.

Class I. DICOTYLEDONS.

SUBCLASS POLYPETALÆ.—SERIES THALAMIFLORÆ.—
ALLIANCE RANALES.

Order II. DILLENIACEÆ.

TRIBE HIBBERTIÆ.

HIBBERTIA, Andr.

H. diffusa, R. Br. A close compact shrub or undershrub, 1 foot to 4 feet high. Branches pubescent, often of a reddish color. Leaves from obovate to linear-cuneate, very obtuse or truncate, the larger ones over 1 inch long and often with 2 or 3 short lobes or teeth at the end. Peduncles very short. Sepals broadly oblong, obtuse, about 4 lines long, the outer ones rather shorter and narrower. Petals very broad at the top, entire. Stamens about 20 to 25, without staminodia. Carpels glabrous, about 3.—Flora Austr., i., 36.

Hab.: On top of Mistake Range.

Order V. MENISPERMACEÆ.

TRIBE PACHYGONEÆ.

HUSEMANNIA, F. v. M. in Wing's So. Sc. Record, iii.

(After Dr. Theodor Husemann, of Goettingen.)

Sepals 9, in 3 series; the outer ones minute, the inner ones much longer, ovate-roundish, valvate and slightly induplicate before expansion. Petals very minute, flat, bilobed at the summit, much contracted at the base. Stamens of male flowers 6, free unless at the base; filaments thickened upwards; anthers nearly globular but somewhat didymous, their cells opening by anterior almost semicircular slits; the connective narrow and not produced beyond the cells. Ovaries of female flowers 6; stigma of each awl-shaped, recurved, undivided, finally becoming nearly basal. Carpels on a conspicuous stipe, oblique-ovate, somewhat impressed on both sides, rather acutely margined; pericarp almost coriaceous; internal process erect, thin, flat, extending to beyond the middle of the cavity. Seeds nearly cylindrical,

conduplicate by horseshoe-like curvature; no albumen; integument smooth; cotyledons for the greater part of their length turned dorsally towards the pericarp; radicle extremely short. A tall climber, with large, almost ovate, somewhat pointed and stiff leaves. Flowers in spicate-paniculate clusters of very small, dark, silky-hairy flowers, with short stamens and stipitate carpels.

H. protensa, *F. v. M.* (Referring to its extending habit.) A tall climber. Leaves sometimes 15 inches long and over 6 inches wide but often much smaller, glabrous and shining, distantly penninerved, the closely reticulate veins prominent on the under side. Petioles $\frac{1}{2}$ to 3 inches long, thickened and velvety towards the top. Flowers scarcely $\frac{1}{2}$ -inch long, the inside of the sepals and the petals glabrous. Carpels about $\frac{3}{4}$ -inch long, velvety stipe about $\frac{1}{8}$ -inch.—*F. v. M.* in Wing's So. Sc. Rec.

ALLIANCE PARIETALES.

Order VIII. CRUCIFERÆ.

TRIBE CAMELINEÆ.

BLENNODIA, R. Br.

B. nasturtioides, *Benth.* A glabrous annual, the central scape erect and leafless, the lateral branches decumbent at the base and leafy, from a few to 12 inches long. Leaves usually pinnately divided into few linear segments. Flowers small, yellow, the loose fruiting raceme 3 to 6 inches long, with slender pedicels. Pod narrow, about 6 lines long. Seeds small, ovate.—*Flora Austr.*, i., 74.

B. cardaminoides, *F. v. M.* (Resembling a *Cardamine*.) A small annual, more or less clothed with a minute stellate pubescence. Leaves pinnatifid, the radical ones with rather numerous, small, ovate-triangular or lanceolate lobes, the terminal ones confluent, the lower ones becoming distinct segments along the petiole. Stem-leaves few and small, with few short lobes. Flowers white or pink, the sepals barely 1 line long. Petals obovate, twice as long. Fruiting raceme loose and slender, 2 to 4 inches long, with slender spreading pedicels. Pods 4 to 6 inches long, scarcely 1 line broad, usually curved, narrowed towards the base, glabrous or with a minute stellate tomentum; valves very convex and keeled. Seeds small, ovate, emitting mucus when soaked.—*Flora Austr.*, i., 75.

B. canescens, *R. Br.* (Referring to the white-hoary appearance of plant.) (*Erysimum Blennodia*, *F. v. M.*, *Fragm.*, x., 78.) A softly hoary annual, pubescence stellate. Leaves lanceolate or oblong-linear; the radical ones 2 inches long, pinnatifid and narrowed into a petiole, the upper ones linear, toothed or entire. Flowers large, pink, resembling a "Stock." Calyx $2\frac{1}{2}$ lines long, hoary. Petals twice as long, with long claws. Fruiting racemes loose, 2 to 6 inches long; the pedicels short. Pod linear, 1 to $1\frac{1}{2}$ inch long, slightly pubescent, with convex valves, crowned by the large persistent stigma. Seeds oval-oblong, smooth.—*Flora Austr.*, i., 76.

GEOCOCCUS, J. Drumm.

(Name referring to its habit of ripening its pods under the surface of the earth.)

Sepals short, spreading, equal at the base. Petals small. Pod oblong, slightly compressed, obtuse, the valves convex, with a prominent midrib; stigma sessile, entire. Seeds few, the two series rather distant, oblong, not bordered, with long funicles; cotyledons incumbent. A stemless herb, with radical pinnately divided leaves, ripening its pods under ground.

G. pusillus, J. Drumm. in Kew Journ., vii., p. 52. (Referring to the plant being of small weak habit.) A stemless tufted annual. Leaves all radical, spreading, $1\frac{1}{2}$ to 3 inches long, pinnately divided, with triangular or shortly lanceolate lobes; the lower ones distinct, the ultimate ones confluent. Flowers on short, erect, radical peduncles. Petals oblong, not clawed, shorter than the calyx. Fruiting peduncles lengthening to from $\frac{1}{2}$ to 1 inch, recurved so as to bury the pod in the ground.—Flora Austr., i., 80.

TRIBE LEPIDINÆ.**LEPIDIUM, Linn.**

L. monolocoides, F. v. M. (Like a *Monoploca*, a genus now placed under *Lepidium*.) An erect branching annual, of about 6 inches, glabrous or slightly rough with minute papillæ. Leaves narrow-linear, entire and not auricled; the lower ones sometimes 2 inches long, but mostly $\frac{1}{2}$ to 1 inch. Flowers very minute, without petals and with only 4 stamens. Fruiting racemes 2 to 3 inches long, with rigid, rather spreading, flattened pedicels of $1\frac{1}{2}$ to 2 lines. Pod orbicular, scarcely 2 lines long, flat, winged all round, the wings united with the style at the top, and projecting beyond it in 2 minute, connivent, acute lobes, forming a short point to the pod. Seeds with a viscid, clear mucus, as in several of the other species.—Flora Austr., i., 85.

L. papillosum, F. v. M. (Referring to the small soft excrescences on the stems.) An erect branching annual, 6 to 12 inches high, having the stems covered with little transparent papillæ, and exhaling an unpleasant scent. Radical leaves petiolate, often 2 inches long, linear-oblong, coarsely toothed or irregularly pinnatifid, the upper ones lanceolate or linear-cuneate, with few remote teeth, and clasping by their auricled base, $\frac{1}{2}$ to 1 inch long, and all glabrous. Flowers very small, without petals, and with only 4 stamens. Fruiting raceme 2 to 4 inches long, with rigid, flattened, rather spreading pedicels of about 2 lines. Pod obovate, about 2 lines long, the valves winged only above the middle, forming 2 rounded terminal lobes, a little over $\frac{1}{2}$ -line long, with the stigma sessile in the rather narrow sinus. Seeds exuding a viscid, clear mucus in great abundance.—Flora Austr., i., 86.

TRIBE THLASPIDEÆ.

THLASPI, Linn.

(From the Greek *thlao*, to flatten : the pods flat.)

Sepals erect, equal at the base. Petals obovate, equal. Pods short, ovate, obovate, obcuneate or oblong, much compressed laterally, notched or rarely acute at the top; the valves boat-shaped, keeled or winged, the septum narrow. Style filiform or stigma sessile. Seeds 2 or rarely 3 or 4 in each cell, not winged; cotyledons accumbent. Annual or perennial herbs, the radical leaves usually spreading, entire or toothed, those of the stem often auricled at the base. Flowers white, pink, or pale purple, rarely yellow.—*Flora Austr.*, i., 87.

T. cochlearinum, *F. v. M.* (Resembling a *Cochlearia*.) An erect, rigid, branching annual of 6 to 12 inches high, slightly pubescent, with a few short, mostly simple, and reflexed hairs. Leaves lanceolate or linear-oblong, entire or with 1 or 2 coarse teeth on each side, narrowed into a petiole; the lower leaves about 2 inches long, the upper ones few and smaller. Flowers white, rather large. Sepals open, $1\frac{1}{2}$ inch long. Petals larger. Fruiting racemes loose, about 2 inches long, with half-spreading pedicels of 6 to 8 lines. Pod broadly oval, 4 to 5 lines long, obtuse at the top, but not notched, pubescent, with short, rigid, reflexed hairs. Styles subulate, nearly 1 line long; valves keeled, but not distinctly winged. Seeds 2 to 4 in each cell, flat, orbicular, emitting a clear viscid mucus when soaked; cotyledons accumbent.—*Flora Austr.*, i., 88.

ALLIANCE POLYGALINÆ.

Order XII. PITTOSPOREÆ.

PITTOSPORUM, Banks.

P. Wingii, *F. v. M.* in *So. Sc. Rec.*, March, 1885. Leaves of almost herbaceous texture, on very short stalks, ovate or elongate-lanceolar, acuminate, hardly or slightly recurved at the margin, beneath prominently penninerved and as well as the branchlets brownish silky-tomentose; corymb umbelliform, solitary, short-stalked or almost sessile; sepals velvet-hairy, narrow-lanceolar, gradually pointed; corolla about one-third longer than the calyx, its tube widened upwards, shorter than the bluntish and not much spreading lobes; anthers fully half as long as the filaments, many times longer than broad; ovary brownish-silky; capsules not large, rather turgid, almost globular or somewhat depressed, velvet-hairy; valves 2, hard; funicles thick and very short. Seeds several, from garnet color turning brown-black, somewhat viscid.

On high rocky ranges near Rockingham Bay.

From Bentham's brief description in the *Flora Australiensis*, i., 112, I was led to assume that this was *P. rubiginosum*; accordingly I described it as such in the *Fragm. Phytogr. Austr.*, vi., 167, the fruits of Cunningham's plant then not being known. But having since obtained an authentic leaf-specimen of *P. rubiginosum* from the great Kew establishment, I find identical with it specimens gathered on

the Daintree River (W. Hill), Trinity Bay (Fitzalan), and Johnstone River (Berthaud), and thus am able now from good material to point out that *P. rubiginosum* differs from the species above recorded anew, in generally larger more verticillate-crowded leaves of thinner quite papery texture with but scanty indument, in often conspicuously pedunculate and not rarely thyrsoid inflorescence, in scattered-hairy sepals, in petals about three times as long as the calyx, cohering for about two-thirds of their length into an almost cylindric tube and being pointed at the much-recurved summit, in filaments more than twice as long as the anthers, in larger almost ovate-cordate fruits, longer than broad, broader towards the base than towards the somewhat acute summit, of deep-yellow color, in thinner valves connate towards the base and only sparsely hairy outside, in a sudden short narrow basal constriction of the fruit, also in generally more numerous and more viscid seeds, not verging into a renate form. The comparison of the flowers of *P. rubiginosum* was rather misleading, as they are considerably larger and much less numerous; the petals are white even when dry, while those of *P. Wingii* are dark-colored in that state, and may therefore fresh be of a different color.

P. Wingii in some respects approaches also *P. revolutum*.

This dedication of the now re-described *Pittosporum* is to the gentleman who, by the issue of the Southern Science Record, under great sacrifices and with indomitable energy, has much contributed in late years here locally to the advancement of natural history, both zoological and botanical.

—“Definitions of some New Australian Plants,” by Baron Ferd. von Mueller, in *Wing's So. Sc. Rec.*, vol. i. (new series), for March, 1885.

Billardiera scandens, Sm. Synopsis, page 20. This plant is known in Tasmania by the name “Apple-berry.”

ALLIANCE CARYOPHYLLINÆ.

Order XVI. CARYOPHYLLÆ.

TRIBE POLYCARPÆÆ.

POLYCARPÆA, Lour.

SECTION PLANCHONIA.

P. longiflora, *F. v. M.* (Referring to the long flowers.) Plant pubescent, erect, 1 to 2 feet high, divided at the base into erect branches. Leaves narrow-linear, ending in hair-like points, silky-hairy, often above $\frac{1}{2}$ -inch long, with smaller ones clustered in their axils. Flowers large, brown, red, or purple in a dense terminal cyme or head. Sepals 3 lines long, scarious, with prominent midrib; the inner ones narrower and more deeply colored than the outer. Petals united with the stamens in a tube, not a line long, their free parts much longer and bifid. Style long. Capsule short, ovoid, obtuse.—*Flora Austr.*, i., 164. (*I. Int.*)

P. spirostyles, *F. v. M.*, should be placed in Section *Planchonia*, not in Section *Polycarpia*, as in the Synopsis, page 24.

P. Burtoni, *Bail.*, Proc. Roy. Soc. Ql. (After R. C. Burton.) Stems several, 9 to 12 inches high, erect from a hard woody base, slightly pubescent. Leaves, those at base of stem linear-spathulate, about 1 inch long, those of the stem almost filiform, about $1\frac{1}{2}$ inch long, with bristle-like points. Flowers in terminal dense corymbs. Sepals narrow-lanceolate, 3 to 5 lines long, scarious, pinkish, with a midrib of a deep purple. Petals united with the stamens in a tube about $2\frac{1}{2}$ lines long, purple, the free parts about the same length, and

more or less lobed; filaments very slender, and with the free parts of the petals reflexed after flowering. Style shortly lobed at the end. Capsule fusiform. Seeds numerous. (*I. and C. Int.*)

Order XVII. PORTULACÆ.

PORTULACA, Linn.

P. napiformis, *F. v. M.* (Turnip-shaped, referring to the thick roots.) Plant glabrous, $\frac{1}{2}$ to 1 foot high, with a thick tuber-like taproot. Leaves alternate, linear, $\frac{1}{2}$ to 1 inch long; stipular hairs very minute. Flowers small, usually 3 together, between 2 to 4 involucreal leaves. Stamens about 16. Style 4-cleft at the top. Capsule small, narrowed into a short stipes.—*Flora Austr.*, i., 169. (*I. Int.*)

P. australis, *Endl.* (Australian.) Plant decumbent, the stipular hairs numerous. Leaves alternate, oblong, elliptical, thick, under $\frac{1}{2}$ -inch long. Flowers yellow, 1 or 2 together, sessile, between 2 to 4 involucreal leaves. Stamens numerous. Style elongated, 5 or 6-cleft. Seeds granulate, the funicles united into as many clusters as styles.—*Flora Austr.*, i., 169. (*I. Int.*)

P. oligosperma, *F. v. M.* (Referring to the few seeds contained in the capsule.) A slender plant of a few inches, the numerous branches opposite, as are also the leaves; these latter about 3 to 4 lines long and oblong. Stipules none or microscopic. Flowers very small, pink, terminal, solitary, closely sessile within 2 or 4 involucreal leaves. Sepals and petals not more than a line long. Stamens about 6. Style divided into 2 to 4 lanceolate delicate lobes. Seeds few, granulate, black.—*Flora Austr.*, i., 170. (*I. Int.*)

P. digyna, *F. v. M.* (Two-styled.) A procumbent glabrous annual of a few inches, with dichotomous or opposite branches. Leaves all opposite, nearly orbicular, 2 or 3 lines long and very shortly petiolate. Stipular hairs very short. Flowers pink, very small, pedicellate, 1 to 3 together, between 2 or 4 involucreal leaves, forming dichotomous leafy cymes. Sepals not 2 lines long. Petals 4, rather longer. Stamens about 10. Style long, with 2 long, linear, stigmatic branches. Ovules about 6; funicles forming 2 clusters. Capsule elongate-conical, covered in the upper part with oblong papillæ. Seeds 1, 2, or 3, black and shining.—*Flora Austr.*, i., 170.

CALANDRINIA, H. B. et K.

C. uniflora, *F. v. M.* (Alluding to the one-flowered scapes.) Root-stock simple, cylindrical, erect, bearing a dense tuft of narrow-linear leaves 2 to 4 inches long. Scapes numerous amongst the leaves, 8 to 10 inches high, 1-flowered and leafless, except 1 or 2 minute scales. Flowers large. Sepals broad, thin, 3 to 4 lines long. Petals usually 6 or 7. Stamens numerous, the inner ones much longer than the outer; anthers oblong. Styles 4, erect, shortly plumose and stigmatic along their whole length. Capsule about as long as the sepals, 4-valved. Seeds numerous, black and shining.—*Flora Austr.*, i., 172. (*I. Int.*)

ALLIANCE GUTTIFERALES.

Order XXa. TERNSTROEMACEÆ.

Flowers hermaphrodite or rarely unisexual. Stamens usually numerous. Trees or shrubs, with usually alternate, coriaceous, undivided, very rarely opposite or divided leaves. Stipules usually wanting. The flowers commonly racemose, seldom paniculate.

TRIBE SAURAUJÆ.

SAURAUJA, Willd.

(Named after a Portuguese botanist.)

Flowers commonly hermaphrodite. Sepals quite valvate. Petals 5, imbricate, connate at the base or rarely nearly free. Stamens numerous, adhering to the base of the corolla; anthers versatile, opening at the top in pores or short slits. Ovary 3 to 5-celled; styles 3 to 5, distinct or more or less connate. Ovules numerous, anatropal. Berry 3 to 5-celled, rarely dry and subdehiscent. Seeds immersed in pulp, small; albumen copious. Trees or shrubs, very often strigosopilosæ or scaly leaves commonly serrate, with parallel veins. Peduncles axillary or lateral. Flowers numerous or few in subpanicles. Bracteoles small and distant from the calyx.—Gen. Pl., B. et H.

S. Andreana, Oliver (*inedited*). (After H. Andræ.) Arboreous. Branchlets shaggy-hairy. Leaves large, lanceolar-ovate, serrulated, appressed-hairy. Peduncles few-flowered. Sepals densely-hairy; filaments long-adherent; anthers opening by slits. Styles almost free; ovary 5-celled.—*Kindly furnished by Baron Mueller for this work.*

Hab.: Near the border of New South Wales.

ALLIANCE MALVALES.

Order XXI. MALVACEÆ.

TRIBE MALVEÆ.

SIDA.

S. Spenceriana, F. v. M. (After Mrs. F. Spencer, the discoverer of the plant.) Plant dwarf, covered with orbicular, silver-shining, densely ciliate scales. Stipules linear-setaceous. Leaves from roundish to nearly ovate, irregularly denticulate, $\frac{1}{2}$ to $1\frac{1}{2}$ inch long on petioles of moderate length. Peduncles filiform, 1-flowered, about 4 inches long, jointed near the summit. Calyx-lobes nearly deltoid. Carpels numerous, broader than high, much compressed, oblique-ovate, short-pointed at the summit, prickly at the back, narrowly reticulate at the sides, tardily separating. Seeds slightly downy.—*Baron Mueller* in *Wing's So. Sc. Rec.*, April, 1885.

Hab.: Thargomindah, Paroo River.

S. platycalyx, *F. v. M.* (Alluding to the broad bell-like calyx.) Plant shrubby, clothed with a velvety stellate tomentum. Leaves ovate-cordate, nearly orbicular, crenate, about 1 inch long. Pedicels as long as the leaves, articulate above the middle. Calyx campanulate, about 5 lines long, each sepal 3-ribbed and another at their junction with each other. Petals broad, shorter than the sepals. Carpels 24 in a tomentose ring round the base of the styles.—*Flora Austr.*, i., 197.

ABUTILON, Gärtn.

A. leucopetalum, *F. v. M.* (Alluding to the light color of the petals.) A tall shrub, softly tomentose, often with long spreading hairs on the branches. Leaves deeply cordate, from orbicular to nearly lanceolate, acuminate, crenate or almost lobed, 2 to 3 inches long. Flowers large, white, on short pedicels. Calyx tubular-campanulate, $\frac{1}{2}$ to $\frac{3}{4}$ inch long, 10-ribbed. Petals twice as long as calyx, adnate only to the pubescent base of the staminal tube.—*Flora Austr.*, i., 200. (*I. Int.*)

Order XXIII. TILIACEÆ.

TRIBE GREWIEÆ.

TRIUMFETTA, Linn.

T. Winneckeana, *F. v. M.* in Append. to Mr. Winnecke's Explo. Diary, 1883. (After the discoverer, Mr. Winnecke.) Leaves roundish or verging into an oval form, denticulated and somewhat crisp at the margins, velvet-hairy on both sides. Sepals narrow, dorsally terminated by a minute conical appendage. Petals downy towards the base. Stamens numerous. Ovary 3-celled. Fruit large, on a slender stalklet, almost globular, indehiscent, thinly tomentose, copiously beset by long, spreading, bristle-like, hooked prickles, the latter nearly glabrous at the summit.

Hab.: Near the southern border of Queensland.

Allied to *T. leptacantha*, but the fruits are much larger, and not glabrous.—*Ferd. von Mueller, l.c.*

TRIBE ELÆOCARPEÆ.

ELÆOCARPUS, Linn.

E. Kirtonii, *F. v. M. (inédit.)* (After — Kirton.) A tall tree, often over 100 feet high, producing a fine timber; glabrous except the young shoots, which are more or less silky and often covered here and there with glaucous patches. Leaves oblong, lanceolate, acuminate, 4 to 8 inches long, 1 to $1\frac{1}{2}$ broad, more or less cuneate at the base to a petiole of under 1 inch, sharply serrate and prominently reticulate. Inflorescence not seen. Drupe ovoid, about $\frac{1}{2}$ -inch long, usually 2-seeded; putamen rugose.

Hab.: Forests of the Bunya Mountains, where by some it is called "White Beech." The trees are also abundant on Mount Mistake. Thus the tree seems only to be met with in high mountain scrubs.

E. Bancroftii, *F. v. M. et Bail.* in Proc. Roy. Soc. Ql. (After Dr. T. L. Bancroft, who collected the woods of the Johnstone River for the Colonial and Indian Exhibition.) A large handsome tree often attaining more than 100 feet in height, with a diameter of more than 2 feet of stem. Bark scaly, of a brownish color, about $\frac{1}{4}$ -inch in thickness. Wood hard and durable, resembling the American *Lignum-vitæ*, and might serve for the same purposes. The young growth and inflorescence clothed with a short rusty pubescence, the older leaves glabrous. Leaves clustered at the ends of the branches, ovate, obovate, or lanceolate, 2 to 4 inches long, 1 to 2 inches broad; the smaller ones at times very obtuse, tapering into a petiole of from 1 to nearly 2 inches long; the midrib and few distant primary veins prominent, the small reticulations also often distinct on both sides. Flowers in lateral or axillary umbel-like racemes, bearing at the summit 3 to 5 rather large flowers, with often 1 or 2 lower down the stalk; pedicels about 5 lines long. Sepals 4, valvate, rigidly coriaceous, oblong or lanceolate, about 5 lines long and 2 lines broad, densely clothed on the inside by rather long silky hairs, the outside rusty. Petals 4, broadly cuneate, about 7 lines long and 6 lines broad at the top, which is wavy and lobed with 3 short obtuse lobes; the outside of the petals slightly silky. Stamens numerous, over 25; filaments flexuose, inserted on an annular lobed disk; anthers linear, about 2 lines long, the terminal 2-valved opening prominent, giving a lobed appearance to the apex. Ovary 4-celled; ovules generally 4 in each cell, hairy. Style subulate, hairy at the base. Stigma small. Drupe velvety, ovoid or nearly globular, about $1\frac{1}{4}$ inch diameter; in drying, when fully ripe the thin epicarp readily separating from the mealy rather thick sarcocarp, this also separating freely from the hard smooth-pitted putamen. Putamen thick, but the 4 cells prominently marked, 3 of which are abortive; thus the fruit contains but a solitary seed, which resembles the kernel of a peach-stone, has an agreeable flavor, and is eaten by the settlers.

Hab.: Johnstone River.

SERIES DISCIFLORÆ.—ALLIANCE GERANIALES.

Order XXVI. ZYGOPHYLLÆ.

TRIBULUS, Linn.

T. hystrix, *R. Br.* (Alluding to the prickly hedgehog-like fruits.) A prostrate plant with densely hairy or woolly branches, the lower leaves alternate, upper ones opposite, the larger leaf of each pair with from 6 to 8 pairs of leaflets. Flowers medium-sized; cocci covered with hairy prickles.—*Flora Austr.*, i., 289.

NITRARIA, Linn.

Calyx small, 5-lobed. Petals 5, concave with inflexed points. Disk prominent. Stamens 15, rarely 10 or 14; filaments free, without appendages. Ovary 2 to 6-celled. Style with 2 to 6 adnate stigmas; ovules solitary in each cell. Fruit a drupe, with a berry-like sarcocarp;

putamen hard, marked with irregular depressions, opening at the top in 6 pointed valves, the 3 inner ones smaller. Seeds solitary. Rigid often thorny shrubs. Flowers small, white, in once or twice forked scorpioid cymes.—*Flora Austr.*, i., 291.

N. Schoberi, *Linn.* A rigid shrub of 3 or more feet high, hoary and the branchlets now and again thorny. Cyme with sessile flowers. Ovary 3-celled, the drupe marked by 6 furrows.—*Flora Austr.*, i., 291.

ZYGOPHYLLUM, *Linn.*

Z. glaucescens, *F. v. M.* A somewhat erect herb, the leaves of 2 broad leaflets and with the petiole at times winged at the base. Flowers usually 4-merous. Filaments with toothed wings. Capsules about $\frac{1}{2}$ -inch long, opening loculicidally, the angles equally rounded at the top and the base. Seeds 2 or 3 or sometimes 4 or 5 in each cell.—*Flora Austr.*, i., 293.

Hab.: Main Range, near Toowoomba.

Z. iodocarpum, *F. v. M.* (Violet-colored fruit.) A small, much-branched, diffuse annual. Leaflets oblong-cuneate or almost linear, very obtuse, rarely $\frac{1}{2}$ -inch long, the petiole often 2-winged, especially towards the top. Flowers very small, usually 5-merous, the petals not 2 lines long. Filaments dilated at the base into short, narrow, entire wings, entirely adnate or very shortly free. Capsule 2 or rarely 3 lines long, loculicidal, the angles equally rounded at the top and at the base. Seeds solitary in each cell.—*Flora Austr.*, i., 293.

Z. ammophilum, *F. v. M.* (From growing usually in sandy situations.) A glabrous procumbent annual. Leaflets oblong or linear-cuneate, the apex usually retuse; petioles about 1 inch long and 12 lines broad. Stipules lanceolate-deltoid. Flowers very small; sepals lanceolate, about $1\frac{1}{2}$ line long. Petals white, $1\frac{1}{2}$ line long. Stamens opposite the sepals; 4 or rarely more filaments, linear-subulate; anthers cordate, yellow. Capsules dependent, about 4 lines long. Seeds brown.—*F. v. M.*, *Fragm.*, xi., 28.

Hab.: Warrego.

Z. fruticosum, *DC.* (Of small shrubby habit.) A low diffuse or divaricately branched shrub. Leaflets obliquely oblong or lanceolate, rarely ovate. Flowers 4-merous, the size of *Z. apiculatum*. Filaments subulate, without wings. Capsules $\frac{1}{2}$ -inch long, indehiscent or at length separating septicidally into cocci opening inside, the angles expanded into broad membranous wings rounded at both ends and not splitting. Seeds solitary in each cell.—*Flora Austr.*, i., 294.

Order XXVIII. RUTACEÆ.

TRIBE BORONIEÆ.

BORONIA, *Sm.*

B. anemonifolia, *var. anethifolia*, *Flora Austr.* Leaves often bipinnate; leaflets very narrow, acute. Flowers 3 or more in the cyme. (*I. Ext.*)

PHEBALIUM, A. Juss.

SECTION LEIONEMA.

P. elatius, Benth. (A tall species.) A shrub 6 to 8 feet, glabrous or minutely pubescent and often tuberculate, with prominent glands. Leaves linear-cuneate or oblong, obtuse, $\frac{1}{4}$ to $\frac{1}{2}$ inch long, smooth and shining. Peduncles 2 or more flowered, terminal or in the upper axils, forming short, terminal, leafy corymbs. Calyx small. Petals valvate, not 2 lines long. Stamens exserted; filaments subulate; anthers small. Ovary glabrous, on a raised disk. Cocci very minutely beaked. —Flora Austr., i., 340. (*I. Ext.*)

TRIBE ZANTHOXYLÆ.

ZANTHOXYLUM, Linn.

Z. veneficum (sp. nov.). (Wood possessing poisonous properties.) Tree of medium size, glabrous, the branches and sometimes the stem prickly. Leaves from 6 to 12 inches long including the petiole; pinnæ in opposite pairs, petiolulate, ovate-oblong, shortly acuminate, unequally sided at the base, 3 to 6 inches long and 1 to 2 inches broad, the primary veins prominent, almost transversely spreading. Inflorescence in a terminal trichotomous panicle.

The flower-buds on the specimens received were too young to describe, and no fruit was sent. This species is nearly allied to *Z. brachyacanthum*, but the wood is very different, and probably when seen the flowers and fruit may show further distinctive characters. The wood has been found by Dr. T. L. Bancroft to possess poisonous properties. Hab.: Johnstone River.

Order XXIX. SIMARUBEÆ.

BRUCEA, Mill.

Flowers polygamous. Calyx small, 4-cleft. Petals 4, minute, linear, imbricate in the bud. Disk 4-lobed. Stamens 4. Ovary 4-lobed or of 4 distinct carpels, the styles free or connate at the base, the stigmas entire, spreading; ovules solitary in each cell. Drupes 4, ovoid, scarcely fleshy, the putamen rugose. Seeds with a membranous testa; albumen copious; embryo straight, radicle inferior. Trees. Leaves alternate, pinnate; leaflets oblique. Flowers very small in small cymes, in simple, slender, axillary spikes.—Flora Austr., i., 373.

B. sumatrana, Roxb. A small tree with softly tomentose branches. Leaves 1 foot or more long, of 5 to 11 leaflets, toothed and about 3 inches long, clothed with soft hairs. Flowers purple; racemes about 6 to 10 inches long; drupes about 3 lines long.—Flora Austr., i., 373.

Order XXXI. BURSERACEÆ.

GARUGA, Roxb.

(One of the Indian names of *G. pinnata*.)

Flowers polygamous. Calyx campanulate, of 5 valvate lobes. Petals 5, inserted above the middle of the calyx-tube, induplicate-valvate. Disk thin, lining the calyx-tube. Stamens 11, inserted with

the petals. Ovary 4 or 5-celled; styles elongated; ovules 2 in each cell. Drupe indehiscent, with 5 or less bony nuts, rugose outside. Seeds solitary in each nut, cotyledons folded. Trees, with pinnate leaves and rather large flowers in terminal panicles.—Flora Austr., i., 377.

G. floribunda, *Dcne.* (Flowery.) Tree of moderate size, with rather thick branches marked by the scars of fallen leaves. Leaves of 7 or 8 pairs of shortly stalked leaflets, ovate-lanceolate, 2 to 3 inches long, crenate, the common petiole often long and slightly pubescent. Panicle broad, dense, terminal, often on leafless branches. Flowers numerous, small, hoary.—Flora Austr., i., 377.

Hab.: Endeavor River.

Order XXXII. MELIACEÆ.

TRIBE CEDRELEÆ.

FLINDERSIA, R. Br.

F. Schottiana, *F. v. M.* Var. *pubescens*, *F. v. M.* This forms a large umbrageous tree, and principally differs from the southern form in its indumentum and much larger leaves, the leaflets of which are at times 10 inches long and 4 inches broad. Panicles rather small and dense, 6 to 8 inches broad and long, the flowers rather large. (*C. Int.*)

At page 64 of the first part of this work substitute the following for the notice of *F. maculosa* and *Strzeleckiana*. They are here placed separately, as they are so distinct from each other that the one could not be mistaken for the other in a living state:—

F. maculosa, *Lindl.* (As an *Elæodendron*, in *Mitch. Trop. Austr.*, 384.) Spotted tree. A small tree resembling *Geijera parviflora*, but the foliage of a lighter color. Leaves entire, linear, 1 or 2 inches long or perhaps more, obtuse, opposite, the veins not prominent. Flowers very small, in terminal panicles a few inches long, but little branched.

Hab.: Inland in Southern Queensland.

F. Strzeleckiana, *F. v. M.* Spotted tree. A small tree, the bark hard and falling off in scale-like pieces at irregular times; the part from where the pieces have fallen showing a much lighter color than the rest of the bark, gives a spotted appearance. Leaves of 1 or 2 pairs of small linear leaflets about 1 inch long, rhachis winged. Flowers in terminal short panicles; capsules about 1 inch long, dividing into separate boat-shaped pieces.

Hab.: Inland brigalow scrubs of Tropical Queensland.

F. S. var. latifolia. A more robust tree, the bark falling off in larger patches, but with the same spotted or particolored appearance as in the two last. Leaves of 2 or more pairs of leaflets, the leaflets 2 or 3 inches long, $\frac{3}{4}$ -inch broad, slightly hoary as in the two last. Panicle terminal. Capsule oblong, $1\frac{1}{2}$ to 2 inches long, dividing into separate pieces.

Hab.: Main Range, Southern Queensland.

ALLIANCE CELASTRALES.

Order XXXV. CELASTRINEÆ.

TRIBE CELASTREÆ.

ELEODENDRON, Jacq. f.

E. australe, Vent. Var. *angustifolia*. The leaves of this variety are much longer, narrower, and often entire. Drupe oval, red, not usually so large.

Order XXXVII. RHAMNEÆ.

TRIBE VENTILAGINEÆ.

VENTILAGO, Gærtn.

V. ecorollata, *F. v. M.* in Wing's So. Sc. Rec., 1883. (Referring to the flowers wanting petals.) Fruit surrounded only at the base by the tube of the calyx, its appendage narrowly lanceolate-oblong, glabrous.—*F. v. M., l.c.* (*C. Int.*)

From the flowering specimens first received from Rockingham Bay, Baron Mueller described this plant in vol. ix., p. 141, as a *Berchemia*, and as such it is also given in the Synopsis at page 70. But since then, from fruit specimens, he determines it a true *Ventilago*, differing from the other Australian species in being a climber and not a tree, in the hairy twigs and inflorescence, broader less close reticulated leaves, and more pointed lobes of the calyx.

TRIBE RHAMNEÆ.

POMADERRIS, Labill.

P. elliptica, Labill. (From the form of leaf.) A tall shrub, the young branches rusty with a stellate down. Leaves ovate, 2 to 3 inches long, $\frac{3}{4}$ to $1\frac{1}{4}$ broad, glabrous above, white underneath, the midrib and parallel veins often rust-colored. Cymes numerous, in dichotomous panicles. Stipules lanceolate, brown and scarious as well as the broad concave bracts. Calyx about $2\frac{1}{2}$ lines long, white with a stellate tomentum. Petals cordate. Style-branches with capitate stigmas. Capsule about $1\frac{1}{2}$ line.—Flora Austr., i., 417. (*I. Ext.*)

STENANTHEMUM, Reissek.

(Alluding to the narrow calyx-tube.)

Flowers sessile in heads, surrounded by small, persistent, imbricate brown bracts. Calyx-tube adherent at the base, free, slender, often deciduous above the ovary and disk, 5-lobed at the top. Petals 5, hood-shaped, enclosing the anthers; disk scarcely prominent. Ovary wholly inferior, 3-celled. Style entire or minutely 3-toothed. Capsule enclosed in the base of the calyx-tube; the endocarp separating into 3 membranous or crustaceous cocci opening in 2 valves.—Flora Austr., i., 435.

S. Scortechinii, *F. v. M.*, Austr. Chem. et Drugg., 1884. (After Rev. B. Scortechinii.) An erect shrub of several feet, the branches pubescent with stellate hairs. Leaves lanceolate, acute, $\frac{1}{2}$ to $\frac{3}{4}$ inch long, 2 to 4 lines broad, shining above, grey beneath, the margins recurved. Flower-heads dense and somewhat compound, terminal, $\frac{1}{2}$ to 1 inch diameter; bracts scarious, dark-brown, almost oval, keeled. Calyx small, enveloped in white intricate hairs; lobes shorter than the tube, woolly; petals and stamens inserted near the summit of the calyx-tube. Style short, capsule glabrous.—*F. v. M.*, *l.c.*

Hab: Severn River.

ALLIANCE SAPINDALES.

Order XXXIX. SAPINDACEÆ.

TRIBE SAPINDEÆ.

DIPLOGLOTTIS, Hook. f.

D. diphyllostegia, *F. v. M.* (*Cupania diphyllostegia*, *F. v. M.*, in Synopsis, page 77.)

This differs from *D. Cunninghamii* in being a larger tree, smaller leaves of a thinner texture, and the shoots and leaves having a less dense covering of tomentum. Panicle smaller, the flowers with 5 or 6 petals. As a shade tree this is well worthy of being planted. Although belonging to the tropical scrubs it thrives well in the neighborhood of Brisbane. (*C. Int.*)

ATALAYA, Blume.

A. variifolia, *F. v. M.* (Alluding to the variableness of the leaves.) A small tree, the young branches and panicles softly velvety-tomentose. Leaves or leaflets from oblong to linear, apparently longer and quite as variable as in *A. hemiglaucæ*, about 8 inches long, more reticulate, the common petiole usually broadly winged, the wing reticulate. Panicle loose. Sepals silky, about $1\frac{1}{2}$ line long. Petals twice as long. Filaments hairy. Samaræ softly tomentose, 2 inches long including the wing; the cavity pubescent inside.—*Flora Austr.*, i., 463. (*I. Int.*)

TRIBE ACERINEÆ.

BLEPHAROCARYA, *F. v. M.*, Fragm., xi.

(Name referring to the fruit being ciliated.)

Invulcre hard-coriaceous, deeply divided into from 20 to 30 partly coherent or connate laciniae. Flowers sparsely inserted in the base and on the laciniae of the involucre, sessile. Sepals 4 to 5, lanceolate. Petals of the same number as the sepals or less. Stamens unknown. Style persistent, setaceous. Stigma simple, capitellate. Ovary 1-celled, 1-ovulate, surrounded by an undulated annular disk. Fruit indehiscent, reniform, strongly compressed, densely ciliate. Pericarp very thin. Seed filling the cavity; testa membranaceous; albumen none. Cotyledons straight, reniform, externally slightly convex. Radicle situated at the end of the cotyledon, and somewhat

shorter, slightly curved and accumbent. A tree; leaves abruptly pinnate, pinnæ lanceolate, entire, chartaceous. Panicle with opposite branches. Involucre valvately closed to form a globule like a humectatio. Flowers diœcious, very small. Fruit nestling within the involucre, small and numerous.

B. involucrigera, *F. v. M.*, *Fragm.*, xi. (Fruit nestling in a sort of involucre.) Leaves opposite, petioles rusty-pubescent and expanded at the base. Leaflets about 7 pairs; the rhachis semiterete and shortly pubescent, opposite, 3 to 5 inches long and 1 inch broad, more or less gradually contracted into an obtuse point. Peduncles and involucre tawny-velvety, with the ultimate branchlets ternate, and when full grown $\frac{1}{2}$ -inch or less, rather thick. Involucre about 1 inch, campanulate or hemispherical, composed of broad, linear, gradually attenuated bracts, wholly connate below but not forming a defined receptacle, and united to a various extent above, internally smooth and glabrous, externally sulcate and increased in size by adnate scales. The laciniae are connate in twos, threes, or fours, but likely before the opening of the flowers the whole are connate, with their united ends twisted together, but during fruiting they are ascending-patent. Flowers rather numerous but scattered within the involucre, in which they occupy the lower part of the laciniae above the bottom. Sepals $\frac{3}{4}$ -line long, persistent, externally puberulent, rather imbricate in æstivation. Petals or inner whorl of sepals rather less than the outer, more glabrous and acutely narrowed at the base. Disk glabrous. Style about $\frac{3}{4}$ -line long. Stigma rather broader than the style. Ovary compressed, with a silky beard at the apex. Fruit sessile, light-brown, $1\frac{1}{2}$ line high and 3 to 4 lines broad, with a very slight groove at the apex, having a glabrous surface, but ciliated marginally by long, fulvous, silky hairs; testa glabrous, smooth, light-brown; embryo starchy, almost 3 lines broad. Radicle terete, ascending, appressed, scarcely 1 line long.—*F. v. M.*, *l.c.*

Hab.: Rocky mountains about the Endeavor River.

SUBORDER DODONÆÆ.

DODONÆA, Linn.

D. petiolaris, *F. v. M.* Resembling *D. viscosa*, but less narrowed towards the petiole. Leaves oval-oblong, or rather long petioles rounded at the base.—*Flora Austr.*, i., 475.

SERIES CALYCIFLORÆ.—ALLIANCE ROSALES.

Order XLII. LEGUMINOSÆ.

SUBORDER PAPILIONACEÆ.—TRIBE PODALYRIÆÆ.

OXYLOBIUM, Andr.

O. ellipticum, var. **angustifolium**. Leaves long and narrow.

DAVIESIA, Sm.

SERIES FASCICULATÆ.

D. acicularis, Sm. (Alluding to the sharp points of the leaves.) An erect shrub, glabrous or pubescent. Leaves crowded, linear, pungent-pointed, 1 or more inches long, margins revolute, with the midrib conspicuous at the base only. Flowers solitary or clustered; pedicels short. Calyx 1 to 2 lines long, the 5 teeth nearly equal, shorter than the tube. Standard twice as long as calyx; keel shorter, obtuse. Pod 4 to 5 lines long, acuminate.—Flora Austr., ii., 81. (*I. Ext.*)

TRIBE GENISTEÆ.

TEMPLETONIA, R. Br.

T. egena, Benth. (Referring to the leaves being wanting.) A tall, glabrous, leafless shrub, with erect, terete, sulcate branches, the nodes bearing minute protuberances. Pedicels solitary or 2 together, rarely 1 line long, with small orbicular bracteoles close under the calyx. Calyx $1\frac{1}{2}$ line long, with 5 teeth. Petals with long claws scarcely twice as long as the calyx, the standard the longest. Pod 6 to 8 lines long and 4 broad.—Flora Austr., ii., 170.

CROTALARIA, Linn.

SERIES SIMPLICIFOLIÆ.

C. crispata, F. v. M. (Referring to the crisp appearance of calyx after flowering.) A low softly villous herb of about 1 foot. Leaves from obovate to oblong-cuneate, obtuse, $\frac{1}{4}$ to 1 inch long, hairy on both sides. Flowers small, few, in a short terminal raceme. Bracts and bracteoles minute, ovate-acute, hairy outside, glabrous inside. Calyx about 3 lines long, deeply cleft. Petals scarcely exceeding the calyx. Ovary sessile, villous, with 2 ovules. Pod ovoid, villous. Seeds usually solitary, black and shining.—Flora Austr., ii., 179. (*I. Int.*)

TRIBE GALEGEÆ.

PSORALEA, Linn.

P. Archeri, F. v. M. An erect coarse annual about 2 feet high, hirsute with rigid spreading hairs. Leaves 1-foliolate, the leaflet ovate, oblong, obtuse or acute, 2 to 3 inches long, always toothed, dark-green. Flower-heads sessile and very hispid; flowers purple, calyx-lobes subulate. Pods ovate, acute, very hispid.—Flora Austr., ii., 190.

Mr. E. Palmer says:—The native name on the Cloncurry is "Wommo," and there it is found along the watercourses, and used by the natives in making cordage. For this purpose the plants are pulled up and soaked some hours in water, after which they are taken out of the water and left to dry, when the bark is peeled off and manufactured into strong twine and cordage.

P. plumosa, F. v. M. (Referring to the feathery head of flowers.) A plant about 6 to 9 inches high, hispid, with long, spreading, rigid hairs. Leaves pinnately 3-foliolate; leaflets obovate,

entire, about 1 inch long. Flower-spikes dense, hispid. Bracts broad. Calyx-tube short, the lowest lobe lanceolate, nearly 4 lines long. Petals shorter than the lower calyx-lobe. Pod ovate, hirsute.—*Flora Austr.*, ii., 191.

GLYCINE, Linn.

G. sericea, *Benth.* (Silky.) Stems twining, the whole plant clothed with white silky hairs, mixed with rust-colored ones on the calyx. Leaflets 3, linear, 1 to 2 inches long, the terminal one at a distance from the others. Flowers like those of *G. tabacina*. Pod 1 inch long, silky; seeds smooth.—*Flora Austr.*, ii., 245.

INDIGOFERA, Linn.

I. haplophylla, *F. v. M.* (Alluding to the leaves being of a single leaflet.) An erect hoary herb of about 1 foot high. Leaves simple-linear or narrow-oblong, 1 to 2 inches long. Racemes slender, pedunculate, scarcely exceeding the leaves. Calyx-lobes longer than the tube, shorter than the petals. Standard narrowed at the base, not clawed. Keel obtuse. Pod straight, slender, cylindrical, 1 inch or more long.—*Flora Austr.*, ii., 196. (*I. Int.*)

SWAINSONA, Salisb.

S. laxa, *R. Br.* (Flowers in a loose raceme.) Branches terete, in a young state silky. Leaflets 11 to 21, distinctly petiolulate, ovate to oblong, very obtuse, about $\frac{1}{2}$ -inch long, but often very small. Stipules broad and falcate. Flowers yellow, small, in long loose racemes, flowering from near the base. Bracts very small. Pedicels short, with minute bracteoles below the calyx. Calyx $1\frac{1}{2}$ line long, the teeth acute. Standard about 5 lines diameter without callosities; wings much shorter; keel nearly as long as the standard, very obtuse. Style not involute, bearing a prominent tuft of hairs about the stigma, besides the longitudinal beard. Pod inflated, about $\frac{1}{2}$ -inch long, on a short stipe.—*Flora Austr.*, ii., 225.

SUBORDER CÆSALPINIÆ.—TRIBE BAUHINIÆ.

BAUHINIA, Linn.

SECTION CASPARIA.

B. Persiehii, *F. v. M.*, Wing's So. Sc. Rec., 1885. (After the discoverer, W. A. Persieh.) Leaflets 1 to $1\frac{1}{2}$ inch long, almost ovate, semi-orbicular, connate for about two-thirds of their length, each with 5 principal nerves, glabrous above, pale beneath, and as well as the branchlets clothed with a short down. Stipules linear-semilanceolate. Flowers in corymbs; rather large pedicels and slender calyx-tube also downy; the limb spatheaceous, $\frac{1}{2}$ to $\frac{3}{4}$ inch long, membranous, downy on the outside. Petals spreading, membranous, glabrous, rhomboid-ovate with cuneate elongated base, pale-colored, 1 to $1\frac{1}{2}$ inch long, the uppermost marked with numerous dark-red spots, and its base ciliated.

The upper petal innermost while in the bud. The one fertile stamen glabrous, about the length of the petals, the sterile stamens very short; fertile anther narrow-oblong, about $\frac{1}{2}$ -inch long, dark above, bilobed at the base. Style glabrous; ovary shortly hairy.—*F. v. M., l.c.*

Hab: Endeavor River.

SECTION LYSIPHYLLUM.

B. Cunninghamii, *Benth.* (After — Cunningham.) A small tree, the young branches slender, rarely short and spinescent, the young growth pubescent. Leaflets quite distinct, broadly falcate-ovate, very obtuse, $\frac{3}{4}$ to $1\frac{1}{2}$ inch long and more than half as broad, finely 5 to 7-nerved. Flowers 2 or 3 together on a very short peduncle, the pedicels shorter than the calyx. Calyx about 5 lines long, velvety, the disk-bearing base very short and broad, the free part broadly campanulate, thick, divided below the middle into 5 ovate equal lobes. Petals silky, ovate, the 2 outer lower ones exceeding the calyx by above 3 lines, the lateral ones by 2 lines, and the upper inner ones scarcely at all. Stamens 10, the lowest the longest. Ovary on a long stipe, with about 8 to 10 ovules. Stigma large, capitate. Pod flat, 2 inches broad, 6 long, or shorter.—*Flora Austr., ii., 295. (I. Int.)*

SUBORDER MIMOSÆ.

ALBIZZIA, Durazz.

A. procera, *Benth.* in Hook. Lond. Journ., iii., 88; Ind. Flora, ii. A tall tree, glabrous or the young shoots slightly silky. Leaves large, of from 4 to 12 pinnæ, bearing from 12 to 24 shortly stalked obtuse leaflets 1 to $1\frac{1}{2}$ inch long, obliquely truncate on the lower side at the base, and the under side of a lighter color to the top. Inflorescence in a large, spreading, terminal panicle composed of numerous heads of small flowers; the pods thin and broad, over 1 inch.

Hab.: Islands of Gulf of Carpentaria.

A. Toona (sp. nov.). (From the resemblance of the wood to that of the Red Cedar—*Cedrela Toona*.) Mackay or Acacia Cedar. A tall tree with stem often over 3 feet diameter; heartwood red like cedar. The young growth and often the foliage clothed with a rusty pubescence. Leaves oblong in outline, from 6 to over 12 inches long, with numerous pinnæ and a depressed gland frequently between some of the upper pairs; leaflets very numerous, linear, obtuse, 3 or 4 lines long, with the nerve near the upper margin, the base almost lobed on the lower side; petiole angular, pubescent, with an oblong prominent gland towards the middle. Flowers not seen. Pods about 6 inches long and 1 inch broad, prominently veined with forked netted veins, the margins thickened, slightly pubescent, color of pod reddish-brown. Seeds orbicular, along the centre of pod.

Hab.: Mackay, Bowen, Endeavor River, and other parts of Tropical Queensland. This species is closely allied to *A. lophantha*, *Benth.*

Order XLIII. ROSACEÆ.

TRIBE RUBEÆ.

RUBUS, Linn.

R. Muelleri, *Bail.*, Proc. Roy. Soc. Ql., i. (After the eminent botanist, Baron von Mueller.) A large scrambling shrub. Branches glabrous, armed with scattered recurved prickles. Leaves pinnate, 3 to 9 inches long, of 3 to 9 ovate-acuminate or, when small, often obtuse pinnæ, which are coarsely and doubly toothed. Flowers white, in terminal panicles of 4 to 10 flowers; bracts narrow, laciniate. Sepals slightly hoary, points subulate. Petals spreading, not so large as in *R. rosæfolius*. Fruit red, glossy, nearly globular, $\frac{1}{2}$ to 1 inch diameter. Carpels small, numerous, succulent, and with an agreeable acid flavor. (*C. Ext.*)

Baron von Mueller, of Melbourne, writes me that he had received specimens of this plant from Queensland, and had marked it in his herbarium as *R. rosifolius*, var. *eglandulosus*; but as it was not published by him under that name, and, further, as I consider it of specific distinction, I therefore keep it as above.—*F.M.B.*

Order XLIV. SAXIFRAGEÆ.

TRIBE ESCALLONIEÆ.

BALLS-HEADLEYA.

B. stipellosa, *F. v. M.* (*inedited.*)

Order XLVII. HALORAGEÆ.

HALORAGIS, Forst.

H. teucrioides, *A. Gray*. (Resembling a *Tucrium*.) A scabrous hispid perennial, with decumbent or erect stems of 1 to 2 feet. Stem-leaves opposite, ovate or orbicular, deeply and acutely serrate, rounded or cordate at the base, the larger ones $\frac{3}{4}$ -inch long, but mostly not above $\frac{1}{2}$ -inch long and broad. Flowers solitary under each bract, the lower ones opposite, the upper ones alternate, forming a leafy panicle, the bracts usually exceeding the flowers. Fruit globular, the angles usually tuberculate.—*Flora Austr.*, ii., 484. (*I. Ext.*)

H. acanthocarpa, *Brongn.* (Spiny-fruited.) Plant about 2 feet high, scabrous-hirsute. Stem-leaves opposite, oblong or broadly lanceolate, $\frac{3}{4}$ to $1\frac{1}{2}$ inch long, acutely serrate. Flowers very small, alternate along the filiform branches of a long, loose, terminal panicle, with a small leaf at the base of each branch. Calyx-lobes short. Petals 4, glabrous. Stamens 8. Styles and ovules 4. Fruit a line long, muricate, with 2 or 3 transverse rows of tubercles, crowned by the small smooth calyx-limb.—*Flora Austr.*, ii., 489.

Hab.: Gulf of Carpentaria,

ALLIANCE MYRTALES.

Order XLIX. COMBRETACEÆ.

TERMINALIA, Linn.

T. platyphylla, *F. v. M.* (Referring to its broad leaves.) A tree of medium size, the branches and petioles more or less tomentose. Leaves broadly obovate or ovate, very obtuse, 4 to 6 inches long, 2 to 4 inches broad, shortly narrowed into a petiole of an inch long or more, coriaceous, softly pubescent on both sides or nearly glabrous above. Spikes usually shorter than the leaves, with numerous rather small flowers, loose or crowded. Calyx silky-pubescent or villous outside, densely villous inside. Drupes tomentose, ovoid or oblong, obtuse or acuminate, not winged.—*Flora Austr.*, ii.

Hab.: Islands of Gulf of Carpentaria.

SECTION CATAPPA.

T. bursarina, *F. v. M.* (Resembling a *Bursaria*.) A small tree producing a rather hard prettily grained wood. Young shoots and foliage silky-pubescent. Leaves obovate or ovate, usually obtuse, narrowed into a short petiole, 1 to 1½ inch long, the primary veins few, very oblique and reticulate between them. Spikes numerous near the ends of the branchlets, pedunculate, 2 to 4 inches long, the rhachis and flowers softly silky. Calyx-tube about 1 line long, the limb about as long, not so broad and more deeply divided into narrower lobes than in the allied species. Drupe from 3 to 5 lines long, somewhat 3-angled, one face larger than the others and furnished with a more or less prominent spur in the centre.

Hab.: Gulf country; found along the creeks running out of spinifex country.—*F. Hann.*

Order L. MYRTACEÆ.

TRIBE LEPTOSPERMEÆ.

BÆCKEA, Linn.

SECTION SCHIDIOMYRTUS.

B. diosmifolia, *Rudge*. (Leaves supposed to resemble some *Diosma*.) Plants erect or diffuse, much branched from a woody base. Leaves linear, narrow, oblong or somewhat cuneate, concave or semiterete, obtuse or mucronulate-acute, more or less denticulate-ciliate, 1 to 2 lines long. Flowers nearly sessile and solitary in the upper axils. Bracteoles obovate-cuneate, concave, as long as the calyx-tube, very deciduous. Calyx-tube turbinate, about 1½ line long; lobes ovate, denticulate-ciliate. Petals about 1 line diameter. Stamens 7 to 10, none opposite the centre of the petals; filaments filiform; anther-cells parallel, opening longitudinally; connective gland globose. Ovary small, 2-celled, with about 4 ovules in each cell.—*Flora Austr.*, iii., 79.

Hab.: Southern border,

MELALEUCA, Linn.

M. acacioides, *F. v. M.* (Resembling an *Acacia*.) A small tree of a pale green, nearly glabrous or the young shoots and inflorescence pubescent. Leaves alternate, from broadly oblong and under 1 inch, to lanceolate or almost linear and 2 inches long, obtuse or scarcely mucronate, narrowed at the base, often vertical, flat, thick, faintly 3 or 5-nerved. Flowers small, in small, dense, sessile, globular heads, mostly axillary or lateral, the rhachis and calyxes pubescent. Calyx-tube nearly globular, about $\frac{1}{2}$ -line diameter; lobes short and broad. Petals about $\frac{1}{2}$ -line diameter. Staminal bundles about 3 lines long, the claws much longer than the petals, unequally divided at the end into 5 to 7 filaments. Ovules few in each cell, rather large, erect on a short thick placenta. Fruiting-calyx often scarcely above 1 line diameter. — *Flora Austr.*, iii., 138.

Hab.: Islands of the Gulf of Carpentaria.

M. uncinata, *R. Br.* (Referring to the hooked point of leaf.) A tall shrub with the young shoots silky. Leaves linear-subulate, 1 to 2 inches long, with fine recurved points. Flowers in dense, terminal, ovoid-oblong heads, the staminal bundles with about 5 or 7 filaments. Fruiting-spike dense, compact, $\frac{1}{2}$ -inch long. — *Flora Austr.*, iii., 150.

EUCALYPTUS, L'Her.

E. melliodora, *A. Cunn.* (Honey-scented.) A tree of medium size, the bark more or less persistent on the stem, which latter is of a crooked growth; branches smooth. Leaves lanceolate, somewhat falcate, the marginal vein distant from the edge; oil-dots copious. Peduncles axillary or lateral, or terminal and forming a small panicle, somewhat angular, usually with 4 to 7 small flowers. Calyx-tube semiovate. Operculum hemispherical, with a small point. Stamens, the outer ones anantherous; anthers minute, opening near the summit with pores or short slips; stigma dilated. Fruit subglobose, truncate, not angular, 5 or 6 or sometimes 4-celled. Seeds very small without any expanded membrane. — *F. v. M.* in *Eucalyptographia*.

The tree grows on poor soil, and is often in the South called "Yellow Box." The timber is hard and of a yellowish color; the inner layer of bark is also yellowish.

E. eugenioides, *Sieb.* (Resembling a *Eugenia*.) Leaves lanceolate, falcate, or at times ovate, veins rather distant, and the intra-marginal one distant from the edge; oil-dots copious. Peduncles axillary or lateral, bearing an umbel of from 4 to 20 flowers, or occasionally forming a panicle, somewhat angular. Operculum hemispherical or conical. Stamens all fertile; anthers reniform to cordate, opening by divergent slits. Stigma not broader than the summit of the style. Fruit rather small, truncate, globose, 3 to 4 or rarely 5-celled. — *F. v. M.* in *Eucalyptographia*.

One of the Stringybarks around Brisbane, of medium or at times large size, by some known as "White Stringybark." The young shoots of this tree, or rather young plants, are hairy.

Hab.: Southern Queensland.

E. polyanthema, *Schauer*. (Flowers numerous.) A tree of moderate size, the foliage of a rather ashy-grey color, the branches drooping and slender. Leaves on rather long stalks, oval to ovate-lanceolate, the veins spreading, the intramarginal one at a distance from the edge. Flowers in small umbels but often forming small panicles at the ends of the branches, each umbel bearing 3 or 4 small flowers, the operculum obtuse or with a small point. Stamens inflexed in the bud, the outer ones sterile, the fertile anthers truncated and opening by terminal pores. Fruit small, semiovate, with 3 to 5 cells.—*F. v. M.* in *Eucalyptographia*.

This species closely resembles *E. populifolia*, but, according to Baron von Mueller in the *Eucalyptographia*, the leaves of this latter are of a more lustrous green, the inflorescence is less compound, and the flowers are smaller and more crowded, with much shorter stalklets; the anthers also are all fertile and the opening is more lateral; the filaments are darker in color and the fruit is smaller.

E. Stuartiana, *F. v. M.*, *Flora Austr.*, iii., 243. A moderate-sized tree with a soft spongy bark of a light color, persistent. Leaves ovate to narrow-lanceolate, 3 to 6 inches long, resembling in appearance *E. dealbata*. Peduncles axillary when in flower, but lateral as to the fruit, the shoots having grown out and the lower leaves fallen. Flowers rather small and few in each head; operculum conical. Fruit almost globose.—*Flora Austr.*, iii., 246.

Hab: Stanthorpe.

E. pallidifolia, *F. v. M.* (Referring to the pale color of the foliage.) A small tree, the stem seldom over 1 foot in diameter; timber durable, used for posts, &c. Leaves ovate-oblong or lanceolate, very obtuse and rarely 3 inches long, thick and smooth, the fine, parallel, very diverging veins scarcely visible, the intramarginal one close to the edge. Peduncles axillary or lateral, short, nearly terete, with 4 to 6 nearly sessile or shortly pedicellate flowers. Calyx-tube short, about 2 lines diameter. Operculum hemispherical or obtusely conical, shorter than the calyx-tube. Stamens about 2 lines long, inflexed in the bud; anthers ovate, with parallel distinct cells. Ovary flat-topped. Fruit obovoid-globose, 3 to 4 lines diameter, slightly contracted at the orifice, the rim broad, convex, and prominent, the capsule not sunk, the valves protruding and sometimes acuminate by the persistent split base of the style.—*Flora Austr.*, iii., 236.

Hab.: Lawn Creek, Gulf country.—*F. Hann*.

SUBSERIES EUDESMIÆ.

E. tetradonta, *F. v. M.* (Alluding to the four teeth of calyx-tube.) Stringybark of the Mitchell and Flinders. A tree with a whitish fibrous bark. Leaves opposite or alternate, long-lanceolate, acuminate, falcate, above 6 inches long, the numerous oblique veins prominent, the intramarginal one near the edge. Peduncles axillary or 2 or 3 together at the ends of the branches, short and thick, each bearing 3 to 5 large flowers on thick angular pedicels of from 2 to 4 lines. Calyx-tube obconical or turbinate, 3 to 4 lines long, with 4 rounded very obtuse teeth. Operculum hemispherical or nearly globular,

smooth. Stamens very numerous, the largest attaining 5 or 6 lines, not distinctly arranged in clusters; anthers oblong, with parallel cells opening longitudinally. Ovary flat-topped. Fruit oblong-cylindrical, $\frac{1}{2}$ to $\frac{3}{4}$ inch long, 4 to 6 lines diameter, not contracted at the orifice, the rim narrow but forming an acute prominent ring, the capsule sunk, usually 3-celled.—*Flora Austr.*, iii., 260.

Mr. E. Palmer, in his useful paper on the Economic Plants of Queensland, says that the natives use the tough bark of this tree to make troughs for washing "karro" in. This tree is found on sandy land. The leaves are used in cases of fever by the natives, thus: The leaves of the young trees are bruised and rubbed in water in a kooliman until the water is green and thick, in which state it is drunk.

TRISTANIA, R. Br.

T. macrosperma, *F. v. M.*, Papuan Plants, 104. (Referring to the large seeds.) A tree of medium size with a somewhat fibrous bark. Leaves ovate, 2 to 3 or more inches long, tapering into a petiole of $\frac{1}{2}$ -inch or more. Panicle trichotomously branched, terminal capsule 3-celled, free part 3 or 4 lines long, conical teeth winged, but neither flowers nor ripe fruit seen.

Hab.: Thursday Island, Torres Straits.

SYNCARPIA, Ten.

S. Hillii, *Bail.*, Proc. Roy. Soc. Ql., i. (After W. Hill, who first brought the plant to Brisbane.) A tall tree, producing a durable timber; bark thick, deeply furrowed, of a reddish color. Leaves opposite, the pairs often so close as to appear whorled, ovate to ovate-lanceolate, shortly acuminate, rounded at the base, 4 to 6 $\frac{1}{2}$ inches long, 2 to 4 inches broad, deep-green on the upper side, paler beneath, the midrib prominent, transverse veins anastomosing in an intra-marginal one some distance from the margin, both sides finely reticulate. Petioles nearly terete when fresh, much wrinkled when dry, $\frac{3}{4}$ to 1 $\frac{1}{4}$ inch long. Flowers united in heads, each head usually formed of a whorl of 6 with 1 in the centre. Peduncle terete or angular when dry, $\frac{3}{4}$ to 1 $\frac{1}{4}$ inch long, with broad scale-like bracts close under the head. Calyxes connate at the base, the free part campanulate; lobes obtuse, often reflexed. Petals orbicular, with undulate thin margins. Stamens in 2 rows, inflexed in the bud, 2 to 5 lines long; filaments flattened; anthers nearly globular. Fruiting heads 1 to 1 $\frac{1}{2}$ inch diameter. Ovary flat-topped, glabrous, 3-celled. Seeds linear, erect from the thickened axile placenta.

Hab.: Frazer's Island.

TRIBE MYRTEÆ.

EUGENIA, Linn.

E. hemilampra, *F. v. M.*, *Fragm.*, ix.

This tree is separated from *E. Smithii* by Baron von Mueller on account of its thicker and more blunt leaves, which are more dull on the under side, and also the less divergent veins. (*C. Int. and Ext.*)

E. eucalyptoides, *F. v. M.* (Resembling a narrow-leaved Gum.) Native Pear. A small tree, the branches often pendulous. Leaves narrow-lanceolate, somewhat falcate, 4 to 6 inches long, on short petioles, remotely and irregularly penniveined and reticulate, the principal veins confluent at a distance from the edge. Flowers in compact terminal cymes. Calyx-tube broadly turbinate, about 2 lines long, the free part broad; lobes 4, broadly orbicular, the inner larger ones almost as long as the tube. Petals orbicular, the larger outer ones fully 3 lines diameter, all separately deciduous. Ovary half the length of the calyx; ovules incurved, acuminate. Fruit above 1 inch in diameter, red, pear-shaped or globular, 1-seeded, crowned by the calyx-limb.—*Flora Austr.*, iii., 285. (*C. Int.*)

BACKHOUSIA, H. et Harv.

B. Bancroftii, *Bail. et F. v. M.* (sp. nov.) (After Dr. Thos. L. Bancroft.) A tall tree with a persistent, thin, somewhat scaly bark; the wood of an almost equal color, a greyish-brown, very durable and strong, known as the "Johnstone River hardwood," the branchlets angular. Leaves penninerved, opposite, ovate-lanceolate, or those nearest to the inflorescence smaller and ovate-oblong, 2 to 4 inches long, $1\frac{1}{4}$ to nearly 2 inches broad, very obtuse or shortly acuminate, tapering at the base to a petiole of about 3 lines; midrib and primary veins prominent, the latter looping far within the margin. Inflorescence terminal or in the upper axils, in trichotomous panicles, the common peduncle slender, about 2 inches long, bearing 3 to 5 pedicellate flowers at the end of the branches; pedicels slender, about 4 lines long. Calyx-tube broadly turbinate, strongly ribbed and slightly pubescent, scarcely 2 lines long; lobes 5, unequal, broad, and rounded, much imbricated, with more or less of a scarious margin, marked with prominent veins, persistent and enlarging somewhat after flowering. Petals 5, orbicular, much crumpled and very deciduous, slightly larger than the calyx-lobes. Stamens free, numerous, inserted on a raised prominent ring, inflexed in the bud. Ovary broad, slightly sunk in the flower but becoming more or less superior as it advances towards maturity, 2 rarely 3-celled, with about 6 ovules in each cell, the subulate style rather long and persistent. Fruit a dry capsule, free except its broad base, oval, nearly $\frac{1}{2}$ -inch long, 2 or 3-celled, but not seen quite ripe.

Hab.: Johnstone River.

ALLIANCE PASSIFLORALES.

Order LVI. CUCURBITACEÆ.

MELOTHRIA, Linn.

M. Muelleri, *Benth.* (After the celebrated botanist, Baron Ferd. von Mueller, of Melbourne.) A slender scabrous climber. Leaves on long petioles, deeply cordate, 1 or 2 inches in diameter, palmately 5 or 7-lobed, the lobes toothed or lobed. Male and female flowers minute, clustered in the same axils. Berry globular, $\frac{1}{2}$ -inch diameter.—*Flora Austr.*, iii., 320.

ALLIANCE FICOIDALES.

Order LVIII. FICOIDEÆ.

TRIBE AIZOIDEÆ.

TRIANTHEMA, Linn.

T. turgidifolia, *F. v. M.*, *Fragm.*, x., 83. (Leaves turgid.) Plant with the habit of *Sesuvium*, the leaves $\frac{1}{2}$ -inch or more long, 2 or 3 lines thick, obtuse, glaucous, the petioles with a membranous edge. Calyx-lobes about 1 line long. Style 1-setaceous. Stigma minute. Seeds few, black.—*F. v. M.*, *l.c.*

MOLLUGO, Linn.

M. Cerviana, *Ser.* A little, slender, glabrous annual, with filiform branches, and leaves in distant clusters, linear, $\frac{1}{4}$ -inch long, the radical ones shorter and oblong; pedicels filiform, longer than the leaves. Stamens usually 5. Styles 3, distinct. Seeds numerous, small, without any appendage to the funicle.—*Flora Austr.*, iii., 334.

ALLIANCE UMBELLALES.

Order LIX. UMBELLIFERÆ.

TRIBE HYDROCOTYLEÆ.

HYDROCOTYLE, Linn.

H. pedicellosa, *F. v. M.* (Referring to the pedicellate flowers.) Stems slender, slightly pubescent. Leaves orbicular-cordate or reniform, crenate, scarcely lobed, thin, glabrous or sparingly pubescent, often above 1 inch diameter. Stipules broad, entire. Peduncles filiform, with a loose umbel of 10 to 30 very small flowers on filiform pedicels varying from 1 to 3 lines in length. Bracts all broad, short, and scarious. Ovary at the time of flowering not $\frac{1}{4}$ -line long and broad. Petals valvate, glandular. Styles rather long. Fruit about $\frac{1}{2}$ -line broad, smooth or granular, with 2 scarcely prominent ribs on each side.—*Flora Austr.*, iii., 341. (*C. Ext.*)

TRACHYMENE, Rudge.

T. glaucifolia, *Benth.* (Alluding to its grey color.) This plant differs from *T. pilosa*, in that it is perfectly glabrous and glaucous-pruinose when fresh.—*Flora Austr.*, iii., 350.

SUBCLASS GAMOPETALÆ OR MONOPETALÆ.

SERIES INFERÆ.—ALLIANCE ASTERALES.

Order LXIV. COMPOSITÆ.

TRIBE ASTEROIDEÆ.

LAGENOPHORA, Cass.

L. Emphysopus, *Hook. f.* (An old generic name.) Very hirsute or nearly glabrous. Leaves all radical, densely tufted, oblong, obtuse, narrowed at the base, $1\frac{1}{2}$ to 2 inches long. Scapes a little

exceeding the leaves, rather thick and often constricted under the head, leafless or with 1 or 2 very small leafy bracts. Involucre about 2 lines diameter when in flower, 3 lines when in fruit, the bracts oblong, obtuse, with scarious margins. Ray-florets very numerous and short, concave, 2 or 3-toothed ligula. Achenes of the disk abortive, those of the ray as long as the involucre, narrow, flat, contracted at both ends, but without a distinct neck.—Flora Austr., iii., 508. (*I. Ext.*)

BRACHYCOME, Cass.

SECTION BRACHYSTEPHIUM.

B. pachyptera, Turcz. (Referring to the thick wings of fruit.) A densely tufted plant, the radical leaves linear, 3-lobed or shortly pinnate above the middle, with linear segments. Scapes leafless, 2 to 4 inches high. Involucres 3 or 4 lines diameter, bracts very obtuse and broadly scarious. Receptacle small. Achenes slightly compressed, with thick almost corky edges, bordered by a longitudinal line of long woolly hairs, and with a narrow, acutely prominent, glabrous ridge on each side. Pappus of short scaly bristles.—Flora Austr., iii., 512.

B. melanocarpa, Sond. et F. v. M. (Referring to the black achenes.) A small perennial, erect, slightly branched, rarely much over 6 inches high. Leaves mostly oblong-cuneate, obtuse and coarsely toothed at the end or shortly lobed above the middle, narrowed into rather long petioles. Flower-heads small on slender peduncles. Involucral bracts broad, scarious at the end. Ray-florets rather numerous. Achenes narrow, obovate, somewhat compressed, the edges obtuse, the sides often tuberculate, usually black.—Flora Austr., iii., 511.

CALOTIS, R. Br.

SECTION CYMBARIA.

C. cymbacantha, F. v. M. (Referring to the boat-shaped awns or spines of fruit.) Plant about 1 foot high, slightly scabrous-pubescent, the lower leaves linear-cuneate or oblong, coarsely toothed, 1 or 2 inches long, upper ones smaller and entire. Involucral bracts ovate. Ray-florets numerous, narrow. Achenes flat, crowned by 2 rigid divaricate scales, broad and concave, tapering into short, rigid, barbed awns, the summit of the achene convex within the scales.—Flora Austr., iii., 502.

SECTION ACANTHARIA.

C. plumulifera, F. v. M. (Referring to feathery hairs of achenes.) An annual with erect stems of about 6 inches, glabrous or hirsute. Leaves oblong-lanceolate or cuneate, entire or with a few coarse teeth. Involucres 2 or 3 lines diameter, the bracts oblong, obtuse or almost acute. Ray-florets white, numerous. Fruiting-heads about 3 lines diameter. Achenes bordered by densely ciliate wings, and so covered by long mostly plumose hairs as to conceal their form. Pappus of several fine barbed awns, unequal, but mostly about the length of the achene.—Flora Austr., iii., 505.

SECTION CHEIROLOMA.

C. hispidula, *F. v. M.* (Referring to the plant being covered with rough hairs.) Plant hispid, procumbent or with erect branching stems of a few inches high. Lower and radical leaves petiolate, obovate, spathulate, or cuneate, the upper ones oblong-lanceolate, toothed towards the end or entire. Peduncle short. Involucral bracts ovate-lanceolate or oblong, hispid or muricate. Ray-florets few and very small, the ligula scarcely exceeding the pappus; disk-florets numerous, small, and all fertile. Fruiting-heads 3 to 4 lines diameter. Achenes both of ray and disk flattened, margins obtuse; pappus of about 4 to 6 rigid, divaricate, barbed, unequal bristles, alternating with shorter ones or scales, entire or palmately 3-fid.—*Flora Austr.*, iii., 506.

OLEARIA, Moench.

SECTION ERIOTRICHE.

O. pimeleoides, *Benth.* (Resembling a *Pimelea*.) A shrub of 4 or 5 feet, more or less hoary with a close woolly tomentum, the branches rigid and virgate or sometimes short and spinescent. Leaves mostly oblong-cuneate and 3 or 4 lines long, or into longer and almost linear, with recurved margins. Involucre broadly ovoid or almost hemispherical, the bracts much imbricate, almost acute. Ray-florets 10 to 15 or more; disk-florets numerous, longer than the involucre. Style-appendages short, obtuse. Achenes silky-villous. Pappus-bristles unequal, but none very short.—*Flora Austr.*, iii., 479.

TRIBE INULOIDEÆ.

GNAPHALIUM, Linn.

G. indutum, *Hook. f.* (Alluding to its clothing.) A slender, erect, much-branched annual rarely above 3 inches high and often not above 1 inch, densely cottony-white. Leaves linear, soft. Flower-heads small, sessile amongst leafy bracts, at first dense but not in globular heads, and at length looser, forming leafy corymbs. Involucre ovoid, about 1 line, woolly at the base; the bracts oblong, with erect, scarious, brown or straw-colored tips. Female florets very numerous, with 2 to 4 hermaphrodite ones in the centre. Pappus-bristles quite free.—*Flora Austr.*, iii., 655.

WAITZIA, Wendl.

Involucre broadly turbinate-campanulate, hemispherical or almost globular, the bracts imbricate in many rows, all colored and petal-like, the inner ones on narrow claws, spreading or appressed, but rarely and only shortly radiating. Receptacle flat, without scales. Florets numerous, all hermaphrodite, tubular, 5-toothed. Anthers with fine tails. Style-branches nearly terete, truncate or with very short cones, almost capitate. Achenes somewhat compressed, glabrous or papillose, terminating in a slender beak (rarely very short). Pappus of capillary bristles usually cohering at the base, simple barbellate or

plumose. Herbs, usually annual. Leaves alternate, linear. Flower-heads in terminal corymbs or rarely in oblong leafy racemes. Laminæ of the involucre bracts usually serrate-ciliate at the base.—Flora Austr., iii., 634.

W. corymbosa, *Wendl.* (Flowers in a corymb.) An erect annual of about 1 or 2 feet, scabrous-pubescent or hoary. Leaves linear, the lower ones 2 or 3 inches long, stem-clasping at the base. Flower-heads in a dense terminal corymb. Involucre about $\frac{3}{4}$ -inch diameter, varying in color from pale to dark yellow, white or bright pink, the intermediate bracts with a very slender claw and lanceolate laminæ very acutely acuminate, 3 or 4 lines long, the outer ones passing into small scales more or less descending on the peduncle; 2 or 3 innermost rows of bracts with linear, broader, scarious claws without any or very small laminæ. Florets shorter than involucre. Achenes produced into a slender beak much longer than the achene itself. Pappus-bristles fine.—Flora Austr., iii., 635.

HELIPTERUM, DC.

SECTION EUHELIPTERUM.

H. hyalospermum, *F. v. M.* (Referring to the thin seeds.) A slender woolly annual about 6 inches high, the leaves almost filiform. Flower-heads on long peduncles, leafless except a few small scarious scales passing into the involucre bracts. Involucre hemispherical, 4 or 5 lines diameter without the rays; outer bracts brown or yellow, the inner with a broad, scarious, brown claw, and yellow, petal-like, radiating lamina about 2 lines long. Achenes much compressed. Pappus-bristles 8 to 12, with yellow tips.—Flora Austr., iii., 644.

SECTION PTEROPOGON.

H. pygmæum, *Benth.* (Plant very small.) Plant 2 to 4 inches high. Leaves narrow, almost filiform. Flower-heads few, sessile in dense terminal leafy clusters. Involucre bracts narrow, 4 lines long, brown, scarious, the inner ones with small, white, ovate, radiating tips. Florets 4 to 6, all hermaphrodite. Achenes silky. Pappus plumose.—Flora Austr., iii., 647.

H. strictum, *Benth.* (Referring to its erect growth.) An erect glabrous annual of 1 or 2 feet or often smaller, under 6 inches. Leaves oblong, lanceolate, or linear, mostly stem-clasping, the lower ones petiolate. Flower-heads solitary on long peduncles. Involucre ovoid, $\frac{1}{4}$ to $\frac{1}{2}$ inch diameter, the bracts rigid, the inner ones with oblong, white, radiating, petal-like laminæ. Florets 3 or 4 only in some heads, 8 to 10 in the larger ones, all hermaphrodite. Achenes densely silky-villous. Pappus of 20 or more plumose bristles.—Flora Austr., iii., 646.

H. Dimorpholepis, *Benth.* (Scales of two forms.) An erect annual, with branching stems, green, with a few long hairs, but scarcely any wool. Leaves linear, rather broad, $\frac{1}{4}$ to 1 inch long. Flower-heads small, sessile, within a few floral leaves exceeding the

heads, terminal or lateral. Involucre broadly ovoid, about 2 lines long, the outer bracts lanceolate, scarious, fringed with long cilia, the inner with rigid glandular claws and small scarious tips not spreading. Receptacle conical. Florets rather numerous, exceeding the involucre; a few of the outer ones female. Achenes glabrous. Pappus of about 3 or 4 plumose-ciliate bristles, more or less flattened and scale-like, the outer achenes, especially those of the female florets, often without any pappus, and the innermost usually abortive.—*Flora Austr.*, iii., 650. (*I. Ext.*)

HELICHRYSUM, Vail.

SECTION LAWRENCELLA.

H. semifertile, *F. v. M.* (Referring to the inner florets being frequently sterile.) An erect branching annual of 2 to 6 inches, slightly woolly or glabrous. Leaves narrow-linear, obtuse. Flower-heads on very short peduncles forming an irregular corymb. Involucre ovoid-campanulate, about 3 lines long; outer bracts obtuse, brown or pale colored, innermost with oblong whitish or yellow radiating laminæ. Achenes sprinkled with erect transparent hairs; pappus barbellate towards the end.—*Flora Austr.*, iii., 617.

SECTION OZOTHAMNUS.

H. Becklerii, *F. v. M.* (After Dr. Beckler.) A shrub with slender divaricate branches, pubescent when young. Leaves nearly sessile, oblong-lanceolate or linear, 4 to 8 lines long, glabrous above, hoary beneath. Flower-heads small, in compact panicles terminating leafy branches. Involucre campanulate, about 3 lines broad, the bracts scarious without spreading tips. Florets about 20, several of the outer ones female. Achenes papillose-pubescent or glabrous. Pappus-bristles serrulate.—*Flora Austr.*, iii., 627.

IXIOLENA, Benth.

I. leptolepis, *Benth.* (Slender scales.) A branching perennial with a hard woody base, with a loose cottony wool, which often disappears at the time of flowering. Leaves linear or lanceolate, very acute, rigid, scarcely stem-clasping at the base. Involucre hemispherical, with numerous linear rigid bracts, more or less glandular, the inner ones 2 to 2½ lines long, with narrow scarious tips. Florets numerous, on a broad flat receptacle. Achenes glabrous or slightly pubescent. Pappus of about 8 to 12 bristles, barbellate.—*Flora Austr.*, iii., 597.

I. tomentosa, *Sond. et Muell.* (Alluding to the cottony wool.) A branching perennial of about 1 foot high, at first covered with a cottony wool. Leaves lanceolate, mucronate, rather flaccid, dilated and stem-clasping at the base or the lower ones petiolate. Peduncles short, leafy. Involucre narrow, campanulate, about 4 lines long; bracts linear, woolly, the inner ones with small, narrow, scarious tips not radiating. Florets numerous. Achenes angular, rather long, glabrous or hirsute. Pappus-bristles 10 to 20, capillary, barbellate at the base.—*Flora Austr.*, iii., 598.

MILLOTIA, Cass.

(Origin unknown.)

Involucre cylindrical or almost ovoid, of few nearly equal narrow bracts. Receptacle small without scales. Florets all hermaphrodite, tubular, 4 or 5-toothed. Anthers with fine usually ciliate-plumose tails. Style-branches terminating in a very short cone. Achenes cylindrical, contracted into a slender beak. Pappus of fine barbellate or ciliate capillary bristles. Small annuals. Leaves alternate, linear. Flower-heads small, on terminal peduncles.—*Flora Austr.*, iii., 595.

M. Greevesii, F. v. M. (After Dr. A. Greeves.) A slender erect or diffuse annual, under 6 inches high, more or less woolly-white or at length glabrous. Leaves filiform. Involucre about $2\frac{1}{2}$ lines long, the bracts about 8 to 10, linear, with fine points, but densely cottony at the end. Florets longer than the involucre. Achenes slender with long beaks. Pappus shorter than the corolla, the bristles ciliate-plumose, with a few long hairs.—*Flora Austr.*, iii., 596.

ERIOCHLAMYS, Sond. et Muell.

(Name referring to the woolly clothing of flower-heads.)

Involucre broadly ovoid or almost globular, the bracts imbricate, the outer ones herbaceous with revolute margins, the inner ones with broad scarious margins without colored laminæ. Receptacle slightly convex, without scales. Florets numerous, all hermaphrodite, tubular, 5-toothed. Anthers with very short points or tails. Style-branches broadly truncate. Achenes oblong, without any pappus. Small annuals. Leaves alternate, small, entire. Flower-heads woolly, sessile, solitary or clustered.—*Flora Austr.*, iii., 590.

E. Behrii, Sond. et Muell. (After Dr. H. Behr.) A very much-branched, woolly-tomentose, and usually diffuse annual, under 6 inches high, or sometimes larger. Leaves linear, obtuse, often all under $\frac{1}{2}$ -inch long. Flower-heads numerous, small, sessile amongst the last leaves, and often crowded at the ends of the branches. Involucre more or less woolly, about $1\frac{1}{2}$ line long. Florets scarcely exceeding the involucre, the corollas often woolly at the base.—*Flora Austr.*, iii., 591.

Hab.: Southern border of Queensland.

ACOMIS, F. v. M.

A. Rutidosis, F. v. M. (*Rutidosis acoma*, F. v. M.) A rather slender branching plant of a few feet, more or less clothed with a woolly pubescence. Leaves petiolate, lanceolate or almost ovate-lanceolate, acute, narrowed at the base, 1 to $1\frac{1}{2}$ inch long, losing the wool on the upper side. Involucre about 4 lines diameter, the outer bracts ovate, the inner one oval-oblong. Florets slightly dilated upwards but not at the base. Achenes narrow.—*Flora Austr.*, iii., 591.

Hab.: Mount Perry.

MYRIOCEPHALUS, Benth.

(Referring to the numerous flower-heads.)

Flower-heads exceedingly numerous and sessile on a broad very flat receptacle, in a dense cluster or compound head, surrounded by a general involucre of numerous narrow bracts in many rows, each usually with a scarious tip or radiating appendage. Partial heads 1 or few-flowered. Involucre of few bracts (the outer ones including one on the general receptacle subtending each head), usually contracted into a stalk-like base and scarious at the tip, the inner ones scarious and transparent from the base, or rarely all narrow and rigid. Receptacle without scales. Florets hermaphrodite, tubular, slender, 3 to 5-toothed. Anthers with more or less conspicuous points or tails at the base. Style-branches nearly terete, truncate. Achenes more or less compressed. Pappus none, or of 1 or more awns or bristle-like scales, simple or plumose. Herbs, annual or perennial, often hoary-white with woolly hairs. Leaves alternate, entire. Cluster or compound heads terminal.—*Flora Austr.*, iii., 557.

M. rhizocephalus, Benth. (Referring to the flower-heads being close to the rootstock.) A tufted annual of 2 or 3 inches or even much less, covered with the broad sheathing bases of the leaves, the leaves grass-like, 3 or 4 inches long. Clusters of flower-heads globose, about $\frac{1}{4}$ -inch diameter, sessile amongst the upper leaves, which form an outer involucre. Bracts of general involucre transparent, with green midribs. Pappus of 1 fine awn or none. Achenes hairy.—*Flora Austr.*, iii., 558.

M. Rudallii, Benth. (After Dr. J. T. Rudall.) A branching annual of about 6 inches high. Leaves oblong-linear, cuneate or spatulate, often dilated at the base, not above $\frac{1}{2}$ -inch long. Clusters of flower-heads about $\frac{1}{4}$ -inch diameter. General involucre with ciliate bracts, with green midribs and no laminae, the inner ones white with petal-like tips. Achenes with from 1 to 4 bristle-like scales.—*Flora Austr.*, iii., 559

M. Stuartii, Benth. (After J. McD. Stuart, the explorer.) Plant erect, not much branched, 1 to 2 feet high, pubescent or woolly. Leaves linear or lanceolate, half stem-clasping, 1 to 2 inches long, the smaller upper ones with white scarious tips passing into the involucre bracts. Clusters of flower-heads hemispherical, attaining 1 inch diameter or more. General involucre of numerous bracts in several rows, herbaceous at the base, with white, ovate, spreading laminae fully 2 lines long, forming a very conspicuous ray to the cluster. Partial heads 5 to 8-flowered, or the central one with more numerous florets; involucre bracts exceedingly thin and transparent, fringed at the end, about 2 of the outermost of each involucre as well as the subtending one contracted into a short rigid midrib, the others transparent from the base and very broad. Achenes densely clothed with very long woolly hairs. Pappus of 15 to 20 unequal bristles, ciliate or plumose.—*Flora Austr.*, iii., 560.

ANGIANTHUS, Wendl.

(From the vessel-like form of flowers.)

Flower-heads numerous and sessile on a cylindrical, conical, convex, or flat receptacle, in a dense cluster, spike, or compound head, surrounded by a general involucre of large and leaf-like or small and herbaceous or scarious bracts, or of both in few rows, without radiating tips, or sometimes very few or none. Partial heads 1 or few-flowered, very rarely many-flowered. Involucre compressed, of few scarious transparent bracts, the subtending one flat, 2 lateral ones conduplicate and keeled or concave, and sometimes 2 or more inner ones flat or slightly concave. Receptacle without scales. Florets hermaphrodite, tubular, slender, 4 or 5-toothed, often hardened at the base. Anthers more or less distinctly pointed or tailed at the base. Style-branches nearly terete, truncate. Achenes usually compressed. Pappus none, or of 1, 2, or more jagged or awned scales, often united in a ring or cup at the base. Annuals or rarely perennials, herbs, or undershrubs, glabrous or more or less cottony. Leaves alternate or irregular, opposite, entire. Clusters or spikes of flower-heads terminal.—*Flora Austr.*, iii., 560.

A. brachypappus, *F. v. M.* (Referring to the short pappus.) A woolly annual. Leaves linear-cuneate, the uppermost short. Clusters of flower-heads oblong or cylindrical, $\frac{1}{4}$ or $\frac{3}{4}$ inch long. Receptacle cylindrical. Partial involucre 1½ line long, with 2 keeled and 2 or 3 flat bracts. Florets usually 2. Pappus a short irregularly fringed cup, not divided into distinct scales and without any long bristles.—*Flora Austr.*, iii., 563.

A. pusillus, *Benth.* (Plant of weak habit.) A slender, erect, corymbosely branched annual of 2 to 6 inches, slightly woolly when young. Leaves thick, linear or linear-cuneate, or the upper ones small and ovate. Clusters of flower-heads oblong-clavate, 3 to 4 lines long, from a pale-yellow to a rich-brown, shining. Receptacle cylindrical, slender. Subtending bracts very broad and transparent, with an opaque truncate base, very few of the lower ones smaller and empty, and no floral leaves round them. Partial involucre of 2-keeled bracts and 2 or 4 flat ones. Florets 2 or 3 in the upper heads or sometimes only 1 in the lower ones, 5-merous, scarcely thickened at the base. Pappus annular, fringed, minute, adhering to and falling off with the corolla.—*Flora Austr.*, iii., 564.

GNEPHOSIS, Cass.

(Darkness.)

Flower-heads numerous and usually more or less stipitate, on a convex or rarely cylindrical receptacle, in an ovoid or globular dense cluster or compound head, without any general involucre or surrounded by a few leafy or scarious bracts rarely exceeding the florets. Partial heads 1 or few-flowered, very rarely many-flowered. Involucre of several bracts, the outer ones like the subtending ones, narrow and

often more persistent, the inner ones broader, transparent, and very deciduous. Receptacle without scales. Florets hermaphrodite, tubular, slender, 4 or 5-toothed, sometimes hardened at the base. Anthers more or less distinctly pointed or tailed at the base. Style-branches nearly terete, truncate. Achenes usually compressed. Pappus none or forming a jagged ring or cup, or rarely of several short distinct scales. Herbs, glabrous or cottony with alternate entire leaves, and terminal, sessile, or pedunculate flower-heads.—Flora Austr., iii., 569.

G. eriocarpa, *Benth.* (Alluding to the woolly seeds.) Plant woolly. Leaves linear-cuneate, $\frac{1}{2}$ -inch long. Clusters of flower-heads globose. Bracts narrow, scarious, with pink glabrous appendages. Partial heads 1 or 2-flowered. Corolla slender, 5-toothed. Achenes densely covered with long wool; no pappus.—Flora Austr., iii., 570.

G. arachnoidea, *Turcz.* (Cobwebby.) A slender, erect, corymbosely branched annual of about 6 to 12 inches, glabrous except the inflorescence, or more or less woolly-tomentose. Leaves very narrow-linear or subulate. Clusters of flower-heads nearly globose, about 2 lines diameter, surrounded by a few small, empty, scarious bracts without any appendage, the subtending ones within the cluster cuneate-oblong, all except sometimes the lower ones with a small, broad, deciduous lamina. Partial heads 2-flowered, very shortly stipitate and sometimes 2 or 3 within 1 subtending bract. Involucral bracts oblong-cuneate with a short, broad, deciduous, yellow lamina, about 6 outer ones apparently more persistent than the inner ones, which have a rather larger lamina. Pappus none.—Flora Austr., iii., 571.

CALOCEPHALUS, R. Br.

(Name referring to the beauty of the heads of flowers)

Flower-heads numerous and usually more or less stipitate on a small and branching or globose or conical receptacle in an ovoid or globular dense cluster or compound head without any general involucre, or surrounded by a few leafy or scarious bracts rarely exceeding the florets. Partial heads 2 or more flowered. Involucre of several bracts, the outer ones like the subtending ones narrow, the inner ones broader, transparent, and very deciduous. Receptacle without scales. Florets hermaphrodite, tubular, 5-toothed. Anthers more or less distinctly tailed. Style-branches nearly terete, truncate. Achenes compressed. Pappus of several narrow scales or bristles, plumose-ciliate.—Flora Austr., iii., 573.

C. platycephalus, *Benth.* (Broad-headed.) Plant more or less woolly, leaves linear. Clusters of flower-heads globose, $\frac{1}{2}$ -inch diameter, terminal. Involucral bracts numerous, the outer ones narrow, the inner ones broader, transparent, all with a reniform folded lamina scarcely conspicuous when the flowers are fully out. Pappus of hair-like woolly-plumose bristles.—Flora Austr., iii., 576.

CRASPEDIA, Forst.

C. pleiocephala, F. v. M. (Heads numerous.) Plants branching at the base into erect stems of 1 foot or more high, more or less woolly. Leaves lanceolate or linear, the lower ones petiolate, 2 inches long, the upper ones stem-clasping. Clusters of flower-heads either solitary, terminal, and globular, 4 to 5 lines diameter, or ovoid and $\frac{1}{2}$ to $\frac{3}{4}$ inch long, and then often two smaller sessile ones close under it, each surrounded by lanceolate bracts with brown scarious margins, shorter than the florets, with a few inner ones quite scarious, and similar subtending bracts within the cluster. Receptacle cylindrical. Partial head 3 to 6-flowered. Involucral bracts with yellow tips. Achenes silky-hairy. Pappus plumose.—*Flora Austr.*, iii., 580.

C. globosa, Benth. (Referring to the head of flower.) Stems erect, simple, rigid, 1 to 2 feet high, silvery white, with a close wool. Lower leaves silvery, oblong-linear or lanceolate, often several inches long, the upper ones few, distant, and small. Clusters of flower-heads solitary and terminal, globular, bright-yellow, about 1 inch diameter, without any general involucre. Receptacle convex, hollow; subtending bracts within the cluster woolly-ciliate, as well as the receptacle. Partial heads 6 to 8-flowered. Involucral bracts and scales of the receptacle ovate or oblong, concave, very thin and transparent, with yellowish tips, not spreading. Pappus of 12 to 15 plumose bristles.—*Flora Austr.*, iii., 580.

CHTHONOCEPHALUS, Steetz.

(So called from the heads of flowers appearing on the earth.)

Flower-heads numerous and sessile on a small receptacle, in a globular or depressed cluster or compound head, surrounded by a few more or less scarious or leafy bracts, forming an irregular general involucre. Partial heads few or many-flowered. Involucre of several scarious bracts, the outer ones rarely with leafy tips, and similar bracts or scales on the partial receptacles under each floret. Florets hermaphrodite, tubular, 4 or 5-toothed. Anthers more or less distinctly tailed. Style-branches nearly terete, truncate. Achenes compressed, glabrous. Pappus none or short, annular, fringed and very deciduous. Very small tufted annuals. Leaves radical or alternate; entire clusters of flower-heads sessile.—*Flora Austr.*, iii., 581.

C. pseudoevax, Steetz. (Supposed to resemble an *Evax*, another plant of the order.) A small annual with scarcely any stem, consisting of numerous sessile flower-heads forming patches of $\frac{1}{2}$ to 1 inch, surrounded by a few oblong spreading leaves $\frac{1}{2}$ to $\frac{3}{4}$ inch long, forming as it were a general involucre, with rarely a leaf or two protruding between the heads. There are also immediately under most of the heads, or at least the outer ones, 2 or 3 linear leafy bracts, woolly with scarious tips. Heads ovoid-globular. Involucral bracts with broad obtuse tips. Pappus none.—*Flora Austr.*, iii., 582.

PODOLEPIS, Labill.

P. Lessoni, Benth. A branching plant of about 1 foot high, with lanceolate small leaves, stem-clasping and slightly decurrent on the stem. Peduncles filiform. Involucres hemispherical, 4 lines diameter; bracts scarious, ovate, obtuse or acute, ciliate. Ray-florets pink, small, 3 or 4-lobed. Pappus of few capillary bristles, that of the ray reduced to a single bristle or wanting.—*Flora Austr.*, iii., 606.

TRIBE HELIANTHOIDEÆ.

WEDELIA, Jacq.

W. asperima, Benth. (Very rough foliage.) A coarse erect plant 1 or 2 feet high, very rough foliage. Leaves petiolate, from oblong-lanceolate to linear-lanceolate, 2 to 3 inches long, irregularly toothed, narrowed at the base. Flower-heads several, in a loose terminal leafy panicle on rigid peduncles longer than the leaves. Involucre hemispherical; bracts numerous, acuminate, 4 to 5 lines long. Scales of receptacle very acute and rigid. Ray-flowers 10 to 12 or more. Achenes with obtuse edges; no pappus.—*Flora Austr.*, iii., 539.

TRIBE ANTHEMIDEÆ.

COTULA, Linn.

SECTION LEPTINELLA.

C. reptans, Benth. Var. *major*. A creeping perennial, glabrous or but slightly hairy. Leaves pinnate, including the rather long petiole about 2½ inches long. Pinnæ or segments deeply lobed. Flower-heads about 2 lines diameter on peduncles about as long as the leaves. Involucral bracts nearly orbicular. Receptacle conical. Female florets in several rows, the corollas very short and broad, inflated, contracted at the orifice, obliquely 2 or 3-toothed, the style shortly exerted. Achenes of the female florets sessile, flattened, with thickened obtuse margins scarcely forming distinct wings, obtusely notched at the top, those of the disk usually abortive.—*Flora Austr.*, iii., 551.

Hab.: Creeping over the mud along the margins of the swamps at Nerang Creek.

CENTIPEDA, Lour.

C. Cunninghamii, *F. v. M.*, Fragm., viii., 143. (After A. Cunningham.) Plant erect, rigid. Leaves dentate. Flower-heads rather large, the involucral bracts with membranous margins. Florets numerous. Achenes cylindrical or club-shaped.

C. thespidioides, *F. v. M.*, Fragm., viii., 143. (Resembling a *Thespidium*.) A rigid erect herb with dentate foliage. Flower-heads rather large. Involucre semiovate, the margins of the bracts scarious. Achenes cylindrical, hairy.

ISOETOPSIS, Turcz.

(Resembling an *Isoetes*.)

Involucres of few broad scarious bracts, the outer ones with linear leaf-like tips. Receptacle small, without scales but with a few long hairs. Florets of the circumference in several rows, female,

tubular, slender but broader towards the base, 2 or 3-toothed. Disk-florets hermaphrodite but sterile, the tube exceedingly slender, expanded into a campanulate 4-lobed limb. Anthers short, obtuse at the base. Style undivided. Achenes of the female florets nearly terete, with a pappus of obtuse chaffy scales. Achenes and pappus of the disk abortive. Dwarf tufted herb, the flower-heads small and densely tufted within the grass-like leaves.—Flora Austr., iii., 556.

I. graminifolia, Turcz. (Leaves grass-like.) A dwarf, almost stemless, densely tufted plant, the numerous small flower-heads sessile and densely crowded within the radical leaves, which are grass-like, 1 to 3 inches long, the inner ones dilated and more or less scarious at the base, passing into the outer involucre bracts which have short green linear tips, the inner bracts broad and scarious without tips, about 2 lines long. Florets long as involucre. Achenes silky.—Flora Austr., iii., 556.

TRIBE SENECTIONIDÆ.

SENECIO, Linn.

SERIES RADIATI.

S. velleioides, A. Cunn. (Resembling a *Velleia*.) Plant erect, glabrous, 2 to 3 feet high. Leaves ovate-oblong or lanceolate, the lower ones petiolate, the intermediate ones 2 to 4 inches long, coarsely serrate, narrowed below the middle, but sessile and stem-clasping with broad rounded auricles, the upper ones cordate-ovate or lanceolate, entire, broadly stem-clasping. Flower-heads not large, often numerous in a terminal corymb. Involucre campanulate, the bracts 3 or 4 lines long, with a few small outer ones. Ray-florets usually about 10 or fewer, rather long; disk-florets scarcely exceeding the involucre. Achenes glabrous or slightly pubescent.—Flora Austr., iii., 668. (*C. Ext.*)

S. brachyglossus, F. v. M. (Alluding to the short ligulæ of ray-florets.) A slender annual of from 6 to 18 inches high, glabrous or sprinkled with a few white hairs. Leaves linear, with a few distant teeth or irregularly pinnatifid, with few distant linear lobes. Flower-heads small, solitary or clustered at the ends of the branches of a loose irregular panicle. Involucre cylindrical, of about 8 bracts, about 2 lines long, with 1 or 2 minute outer ones. Ray-florets about 6, the ligulæ oblong but very short and rolled back. Disk-florets 10 to 12, slender, 5-toothed. Achenes densely pubescent.—Flora Austr., iii., 670.

SERIES DISCOIDEI.

S. Cunninghamii, DC. (After A. Cunningham.) Stems much branched, woody at the base, about 1 foot high or sometimes nearly 2 feet. Leaves linear or lanceolate, entire or coarsely toothed, narrowed into a short petiole without any or only very minute auricles at the base. Flower-heads small in a corymb. Involucre cylindrical, of about 8 bracts and 1 or 2 small ones at the base. Florets 10 to 12, all tubular.—Flora Austr., iii., 671.

ALLIANCE CAMPANALES.

Order LXVI. GOODENOVIÆ.

GOODENIA, Sm.

SERIES PEDICELLOSÆ.

G. cycloptera, *R. Br.* (Referring to the wing around the seed.) Rootstock shortly creeping. Radical leaves on long petioles, oblong, coarsely toothed, 1 to 3 inches long. Stems very short or lengthening to 1 foot, with few small leaves all softly tomentose. Peduncles in the upper axils or in the terminal tuft of leaves. Calyx hirsute. Corolla yellow, pubescent outside, 6 or 7 lines long. Capsule orbicular or shortly ovate. Seeds large, orbicular, flat, black with a paler-colored rather marginal wing.—*Flora Austr.*, iv., 74.

G. pinnatifida, *Schlecht.* (Alluding to the lobing of the leaves.) A perennial, sprinkled with appressed hairs or nearly glabrous, the rootstock tufted or creeping. Radical leaves petiolate, oblong-spathulate or narrow, deeply toothed or pinnatifid, or a few of the outermost obovate and crenate, 2 to 3 inches long. Stems ascending or erect, $\frac{1}{2}$ to 1 foot long, with narrow entire or pinnatifid leaves. Peduncles very long, axillary, 1-flowered, without bracteoles or with minute ones at the base. Flowers large, yellow. Calyx-lobes linear. Corolla sprinkled with rigid appressed hairs, $\frac{1}{2}$ to $\frac{3}{4}$ inch long in the smaller forms, $\frac{3}{4}$ to 1 inch in the larger ones; the lower lobes often ciliate below the wings, the upper ones deeply separated, with a broad concave auricle on the outer side. Dissepiment of the ovary short, but the ovules rather numerous. Capsule nearly orbicular, 3 to 4 lines long. Seeds few, large, very flat, black with a lighter-colored border.—*Flora Austr.*, iv., 75.

SERIES HETEROMERÆ.—ALLIANCE ERICALES.

Order LXVIII. EPACRIDÆ.

TRIBE STYPHELIÆ.

LEUCOPOGON, *R. Br.*

SERIES VIRGATÆ.

L. virgatus, *R. Br.* (Twiggy.) A low diffuse shrub, with ascending or erect wiry glabrous branches of about a foot. Leaves lanceolate or linear-lanceolate, tapering into rigid points not pungent, concave, minutely ciliate, under $\frac{1}{2}$ -inch long. Spikes short, dense, terminal or in the uppermost axils. Bracts small; bracteoles half as long as the calyx. Sepals about 1 line long, obtuse; corolla-tube rather shorter than the calyx; lobes longer than the tube. Anthers attached a little below the short sterile tips. Hypogynous disk truncate or obtusely lobed. Ovary broad, 5-celled. Style short.—*Flora Austr.*, iv., 201. (*C. Ext.*)

SERIES BICARPELLATÆ.—ALLIANCE GENTIANALES.

Order LXXV. OLEACEÆ.

TRIBE JASMINEÆ.

JASMINUM, Linn.

J. singuliflorum, *Bail. et F. v. M.* (Referring to the flowers being solitary in each axil.) A pubescent or villous climber, slender but often covering the surrounding bushes to the height of 8 or 10 feet. Leaves opposite, 3-foliate; petioles about 3 lines long; lateral pinnae nearly orbicular, 4 to 6 lines diameter, on petiolules of about 1 line; terminal pinna broadly ovate or nearly orbicular, about 1 or $1\frac{1}{4}$ inch long and prominently apiculate; veins few, impressed above and prominently raised beneath; petiolule about as long as the petiole. Flowers white, solitary, with very short lobes to corolla, often in each axil. Pedicels slender, about 4 lines long, with 2 minute bracts near the base. Calyx about 1 line long, with small teeth. Corolla-tube cylindrical, 3 lines long, with about 6 triangular imbricate lobes. Fruit shiny-black, of 2 distinct carpels from 3 to 4 lines diameter, each containing 2 hemispherical seeds, or 1 carpel smaller with a solitary globose seed.

Hab.: Nerang Creek. Baron Mueller considers this new species approaches *J. brevilobum*, A. DC.

Order LXXVII. ASCLEPIADEÆ.

TRIBE MARSDENIÆ.

HOYA, R. Br.

H. Keysii, *Bail.*, Proc. Roy. Soc. Ql., i. (After James Keys.) A succulent pubescent climber. Leaves ovate-cordate when small, the larger ones more ovate, 1 to 2 inches long, $\frac{1}{4}$ to over 1 inch wide, thick, fleshy, but prominently penninerved, the principal veins conspicuously anastomosing within the margin. Inflorescence pubescent. Peduncles 6 to 9 lines long, bearing an umbel of 12 or more flowers, on pedicels of 6 to 9 lines. Calyx-segments about 1 line long. Corolla spreading to about $\frac{1}{4}$ -inch wide, the segments acuminate, inflexed after flowering. Corona-segments with horizontally spreading laminae, very obtuse on the outer margin, the inner margin acuminate and the back with 2 sharp keels as in *H. australis*.

Hab: On rocks, Mount Perry.

DISCHIDIA, R. Br.

D. Rafflesiana, *Wall.* (After Sir Stamford Raffles.) An epiphytal creeping plant, found running over and rooting into the loose bark of trees. Besides leaves this plant forms a quantity of oblong, angular, obtuse ascidia, pendulous, 3 or 4 inches long and over 1 inch broad. On opening these pitchers or reservoirs they will usually be found full of the roots of the plant. Leaves thick, fleshy, roundish-ovate, glaucous. Flowers pale-yellow, in axillary umbels; lobes of corona oblong, obtuse, incurved. Follicles smooth.

A Singapore and Malacca plant, according to Baron von Mueller's "Supplement to Census of Australian Plants." Found also in Northern Queensland.

ALLIANCE POLEMONIALES.

Order LXXXI. BORAGINÆÆ.

TRIBE HELIOTROPIÆÆ.

HELIOTROPIUM, Linn.

SECTION HELIOPHYLUM.

H. indicum, Linn.; Roxb., Fl. Ind., i., 454. (First found in India.) A hirsute annual with stems 6 to 18 inches high, the leaves petiolate, ovate, alternate, or subopposite, 1 to 4 inches long and more or less woolly and the margins subserrate. Spikes 1 to 8 inches long, mostly leaf-opposed and dense, without bracts, the corolla narrow, cylindrical, with small lobes. Fruit ovoid, ribbed, soon separating into 2 mitre-like pyrenes, each pyrene with 2 cavities in addition to the seed-bearing cells.—Hook., Fl. Brit. Ind., iv., 153.

TRIBE BORAGÆÆ.

ECHINOSPERMUM, Swartz.

(Alluding to the prickly hedgehog-like fruits.)

Calyx deeply divided into 5 segments. Corolla with a cylindrical tube, the throat with 5 small scales inside; lobes 5, spreading. Stamens inserted in the tube; anthers included. Ovary 4-lobed; style inserted between the lobes, with a small usually capitate stigma. Nuts 4, usually more or less muricate, with hooked prickles, erect, laterally attached to a narrow-conical receptacle. Seeds without albumen, radicle short. Herbs, with the habit, foliage, and flowers of *Myosotis*, but the flowers usually interspersed with bracts.—Flora Austr., iv., 407.

E. concavum, F. v. M. (Alluding to the concave nuts.) An annual, strigose or hoary with appressed hairs, stems about 6 inches. Leaves linear or oblanceolate, the larger ones above 1 inch long, the upper ones passing into small bracts. Flowers in a one-sided leafy raceme, pedicels lengthening to $\frac{1}{4}$ -inch in fruit. Calyx-segments about $\frac{1}{2}$ -line long, lanceolate, enlarging after flowering. Corolla about 1 line long, the tube with a ring of obtuse scales inside above the anthers, the lobes oblong, nuts about 2 lines long, very concave on the back, with thick, raised, almost involute margins bordered by stout, conical, glochidiate prickles, the enclosed area tuberculate.—Flora Austr., iv., 407.

ROCHELIA, Reichenb.

(After Anthony Rochel, of Pesth.)

Calyx deeply divided into 5 or more segments. Corolla with a cylindrical sometimes incurved tube, the throat with or without scales inside; limb spreading, 5, 4, or 6-lobed. Stamens 5 or fewer, included in the tube. Ovary 2-lobed, 2-celled, with 1 ovule in each cell; style inserted between the lobes, with a small usually capitate stigma. Nuts 2, erect, rugose, laterally attached to the narrow-conical receptacle. Seeds without albumen.

R. Maccoya, *F. v. M.* (After Professor Fredk. McCoy, of Melbourne.) A hispid annual a few inches high. Leaves linear, the radical ones 1 inch long. Flowers on very short pedicels, usually below the floral leaves or bracts, forming a one-sided raceme. Calyx 2 lines long; corolla shorter; stamens 4.—*Flora Austr.*, iv., 408.

CYNOGLOSSUM, Linn.

C. Drummondii, *Benth.* (After James Drummond.) A tall, erect, hispid perennial with the foliage and inflorescence of *C. australe*. The pedicels are often longer, and occasionally a few bracts are developed at the base of the raceme. Nuts depressed, spreading, almost orbicular, with a much-raised, membranous, shortly fringed border; the enclosed upper concave surface quite smooth, or rarely with a slightly raised midrib bearing a few hooked prickles, the under surface convex and quite smooth.—*Flora Austr.*, iv., 409.

Hab.: Near the border of New South Wales.

Order LXXXII. CONVULVULACEÆ.

LEPISTEMON, Blume.

L. Lucae, *F. v. M.* (After Dr. Lucas, of Melbourne, who collected a few plants while on a visit to Northern Queensland.) Branchlets and leafstalks beset with appressed hairs. Leaves hastate, gradually narrowed into an acute apex, the sinus narrow, the lobes ending into a rather acute sometimes excised angle; both pages of the leaves beset with appressed hair, the lower more so than the upper; cymes almost forming umbels. Stalkets during anthesis about as long as the stalks, shorter than the flowers, appressed-hairy. Sepals ovate-orbicular, minute, many times shorter than the corolla. Stigma didymous; ovary and crenulated disk glabrous.—*F. v. M.* in *Vic. Nat.*, October, 1885.

Hab.: Given between the Endeavor River and Port Douglas.

Order LXXXIII. SOLANACEÆ.

SOLANUM, Linn.

S. chenopodium, *F. v. M.* (*Chenopodium*-like.) A slender divaricate shrub of 2 or 3 feet, with a close stellate tomentum, disappearing from the upper surface of the old leaves. Prickles slender, few or numerous on the branches, rare on the leaves, and none on the calyxes. Leaves petiolate, ovate-lanceolate, the broader ones cordate at the base, sinuate-lobed at the base, 1 to 2 inches long. Flowers few in lateral racemes. Calyx about $1\frac{1}{2}$ line long when in flower, with small teeth. Corolla blue, $\frac{1}{2}$ -inch diameter; lobes broad and short. Berry globular, shining, rather small.—*Flora Austr.*, iv., 454.

LYCIUM, Linn.

L. australe, *F. v. M.* A spreading glabrous shrub of 2 or 3 feet, the smaller branchlets often ending in spines. Leaves clustered at the old nodes, obovate-spathulate, thick and fleshy, not $\frac{1}{2}$ -inch long.

Flowers usually solitary at the nodes on short recurved pedicels. Calyx very small. Corolla white, about 5 lines long; tube dilated upwards. Filaments hairy to about the middle, not so long as the corolla.—*Flora Austr.*, iv., 467.

Order LXXXIV. SCROPHULARINEÆ.

PEPLIDIUM, Delile.

P. Muelleri, *Benth.* (After Baron von Mueller.) Stems pro-cumbent, not rooting at the nodes, glabrous or sparingly scabrous-pubescent. Leaves petiolate, ovate, very obtuse, entire, rather thick, $\frac{1}{2}$ to 3 lines long. Flowers usually 2 together in each axil, on pedicels of 1 or 2 lines. Calyx tubular, $1\frac{1}{2}$ line long, 5-angled, with obtuse teeth. Corolla nearly as long as the calyx; lobes oval-oblong, at least half as long as the tube, with 2 very prominent ridges in the throat opposite the sinus of the lower lobes. Filaments scarcely curved. Capsule ovoid.—*Flora Austr.*, iv., 500.

ALLIANCE PERSONALES.

Order LXXXV. LENTIBULARIEÆ.

UTRICULARIA, Linn.

U. lateriflora, *R. Br.* (Lateral flowers.) Scapes slender, 1 to 4 inches high. Leaves radical, spathulate, seldom present at time of flowering. Flowers small, purple, usually only 2 to 4, distant, almost sessile. Bracts obtuse, not produced at the base. Calyx not 1 line long. Corolla, upper lip oblong, exceeding the calyx, the lower lip broader than long, 3 or 4 lines across. Spur conical. Capsule membranous. Seeds small.—*Flora Austr.*, iv., 528.

U. biloba, *R. Br.* (Lips of flower two-lobed.) Scapes slender, simple or slightly branched, 6 to 9 inches high, usually with several small scales, which, as well as the bracts, are alternate and produced below their insertions, mostly acute. Leaves very small and rare at the time of flowering. Flowers blue, several in a raceme, on filiform pedicels. Calyx-segments about 1 line long when in flower, slightly enlarged afterwards, very broad and obtuse. Corolla, upper lip very short, ovate, 2-lobed, with the sides reflexed, lower broader than long, broadly 2-lipped; spur conical, obtuse, horizontal or descending, longer than the lower lip, the whole corolla 3 or 4 lines long. Flowers turning black in drying.—*Flora Austr.*, iv., 531.

ALLIANCE LAMIALES.

Order XC. MYOPORINEÆ.

PHOLIDIA, R. Br.

Calyx divided to the base, with 5 or rarely 4 segments, often unequal, somewhat dilated and much imbricate at the base, acuminate, not enlarged after flowering. Corolla-tube shortly cylindrical at the base, expanded into an obliquely campanulate throat, the limb of 5

spreading lobes, not very unequal, the 2 upper ones usually rather more united. Stamens 4, didynamous, usually exerted from the corolla-tube, but shorter than the lobes. Ovary 2-celled, with 2 ovules, or very rarely only 1 in each cell; style usually longer than in *Myoporum*, and hooked at the end. Fruit a dry or rarely succulent drupe, 2-celled or more or less perfectly 4-celled, with 1 seed in each cell. Shrubs with axillary flowers.—Flora Austr., v., 9.

This genus is placed with *Eremophila* by Baron Mueller.

P. divaricata, *F. v. M.* An erect shrub of several feet, the branches sometimes spinescent, glabrous or with a line of short hairs above each leaf. Leaves linear-cuneate, about $\frac{1}{2}$ -inch long. Flowers purple, white, or spotted. Calyx-segments 4 or 5, broad at the base, acuminate, slightly pubescent or ciliate, 2 to $2\frac{1}{2}$ lines long. Corolla stellate-pubescent outside, under $\frac{1}{2}$ -inch long, very hairy inside. Filaments hairy at the base. Ovary glabrous. Ripe fruit ovoid, about 4 lines long, 4-celled.—Flora Austr., v., 14.

Hab.: Southern border of Queensland.

EREMOPHILA, R. Br.

SECTION EREMOCOSMOS.

E. Sturtii, *R. Br.* (After Captain Sturt, the explorer.) A tree-like shrub of several feet, often viscid and having a strong scent. Leaves narrow-linear with a hooked point, 1 to $1\frac{1}{2}$ inch long. Flowers purplish or nearly white, solitary in each axil, on pedicels of 3 or 4 lines. Calyx-segments obovate or oblong, membranous, obtuse, slightly pubescent, veined, variable as to size. Corolla pubescent, about $\frac{1}{2}$ -inch long, the narrow base short, the upper part broadly campanulate, bearded inside, the 4 upper lobes short, broad, and obtuse, the 2 uppermost more united than the others, notched or 2-lobed, and woolly inside. Stamens included. Ovary very villous, with 2 or 3 pairs of ovules to each cell. Fruit resembling *E. Mitchellii*.—Flora Austr., v., 21.

The only good distinguishing mark to separate *E. Sturtii* from *E. Mitchellii* is the difference in the wood.

Hab.: Cunnamulla.

SECTION PLATYCHILUS.

E. Goodwinii, *F. v. M.* (After — Goodwin.) A shrub of several feet, more or less glandular and viscid and hirsute, with spreading hairs. Leaves linear or linear-lanceolate, acutely acuminate, entire, scarcely contracted at base, sessile, the midrib prominent, 1 to 2 inches long. Pedicels solitary, $\frac{1}{2}$ to 1 inch long. Calyx-segments imbricate, lanceolate, very acute, 4 to 8 lines long. Corolla more or less pubescent outside, $\frac{3}{4}$ to 1 inch long; lobes broad, obtuse, stamens included. Ovary ovoid, very hairy, with 2 pairs of ovules in each cell. Fruit very obtuse or retuse, hairy, 4 to 5 lines long, very thick, with a thick, bony, 4-celled putamen.—Flora Austr., v., 25.

Order XCI. VERBENACEÆ.

TRIBE VITICEÆ.

CLERODENDRON, Linn.

C. inerme, *R. Br.*

In New Guinea this plant is used as a remedy for wounds made by poisoned arrows or spears. For this purpose a bunch of the fresh leaves is gathered and held over a fire until it becomes hot, when it is applied to the wound. This is said to cause great pain for a time, but the healing effects are described by those who have used the remedy as quite marvellous.

SUBCLASS III.—MONOCHLAMYDEÆ.

SERIES CURVEMBRYEÆ.

Order XCVI. AMARANTACEÆ.

TRIBE CELOSIEÆ.

CELOSIA, Linn.

Flowers hermaphrodite, bracteate also with 2 bracteoles. Perianth scarious, 5-parted, segments oblong or lanceolate, obtuse or acute, striate, the fruit erect. Stamens 5; filaments subulate or filiform, connate in a membranous cup at the base; anthers short or elongated, 2-celled. Ovary ovoid, subglobose, or bottle-shaped. Style none, short or elongated. Ovules 2 or more; funicle elongated; utricle included in the perianth or exserted, ovoid or globose, opening by a rupture across the middle or indehiscent. Herbs or annuals.—*B. et H.*, Gen. Pl., iii., 24.

C. cristata, *Linn.* The wild form with conically attenuated slightly copper-colored spikes.—*Baron Mueller* in paper to *Vic. Naturalist*, Oct., 1885.

TRIBE AMARANTEÆ.

TRICHINIUM, *R. Br.*

T. parvifolium, *F. v. M.* (Small-leaved.) A slender herb, pubescent, with a few short woolly hairs. Leaves few, minute, ovate or lanceolate, under 1 line long. Flowers resembling those of *T. semilanatum*.—*Flora Austr.*, v., 241.

T. corymbosum, *Gaudich.* (Flowers in corymbs.) A rather rigid herb of 2 or 3 feet high with linear leaves. Spikes globular or ovoid, at length cylindrical, about 1 inch in diameter, on long peduncles forming a panicle. Bracts and bracteoles rather broad. Perianth about $\frac{1}{4}$ -inch long, with broad, scarious, white margins, the green centre alone hairy, the articulate hairs short. Stamens very unequal.—*Flora Austr.*, v., 226.

Order XCVII. CHENOPODIACEÆ.

TRIBE EUCHENOPODIEÆ.

CHENOPODIUM, Linn.

SECTION RHAGODIOIDES.

C. nitrariaceum, *F. v. M.* (*Nitraria*-like.) A rigid divaricately branching or prostrate shrub, hoary all over, the smaller branchlets often spinescent. Leaves alternate, sometimes clustered at the base of the flowering branchlets, linear-oblong or linear-spathulate, $\frac{1}{2}$ to 1 inch long. Flowers sessile, clustered in interrupted spikes forming terminal panicles, mostly hermaphrodite, with a few males intermixed. Perianth-segments broad, concave. Stamens 5; filaments flat and glabrous; ovary ovoid, erect; styles short. Fruit enclosed in the unaltered perianth. Pericarp membranous. Seeds erect, flat.—*Flora Austr.*, v., 158.

TRIBE ATRIPLICEÆ.

ATRIPLEX, Linn.

SECTION GLOMERATÆ.

A. campanulata, *Benth.* (Fruiting perianth bell-shaped.) A perennial, with hard almost woody stock and rather slender, procumbent, branching stems extending to 1 or 2 feet, the whole plant glabrous or mealy-white. Leaves shortly petiolate, obovate or oblong, entire or angular-toothed, $\frac{1}{2}$ to 1 inch long. Flowers monœcious, all axillary, the males in globular heads or clusters about 1 line diameter surrounded by several females, or all the flowers female in the lower axils. Fruiting perianth very shortly stipitate, the tube campanulate, slightly compressed, about 1 line long in front, longer at the back; the limb much dilated, very oblique, the valves unequal and scarcely appressed, each one 3-lobed, with 2 small herbaceous appendages on the front or shorter face of the tube. Fruit enclosed in the tube. Radicle superior.—*Flora Austr.*, v., 177.

A. fissivalve, *F. v. M.*, *Fragm.*, ix., 123. Leaves from 6 to 12 lines long, deep-green. Flowers monœcious; males terminal, females axillary. The calyx in fruit $1\frac{1}{2}$ line long, rhomboid, acuminate, lacinated.

TRIBE CHENOLEÆ.

CHENOLEA, Thunb.

(Supposed to be derived from *chen*, a goose, and *leia*, prey.)

Flowers hermaphrodite or polygamous. Perianth depressed-globular, membranous, with 5 inflexed lobes closing over the fruit, and 5 or fewer dorsal divergent spines or soft horn-like appendages, often unequal, sometimes very small or quite obsolete. Stamens 5. Styles 2 or 3, connate at the base. Fruit enclosed in the perianth, more or less depressed. Perianth membranous. Seeds horizontal or oblique; embryo annular, the radicle often ascending over the cotyledon or

end. Diffuse or spreading undershrubs or shrubs. Leaves alternate, narrow, usually soft and silky-villous or woolly, rarely glabrous. Flowers sessile and solitary in the axils, enveloped in cottony wool or long hairs.—*Flora Austr.*, v., 189.

C. sclerolænoides, *F. v. M.* (*Sclerolæna*-like.) A small undershrub of about 6 inches high, very woolly. Leaves sessile, linear, obtuse, 2 to 4 lines long. Flowers solitary in the axils, densely involved in wool, when in fruit forming a mass of 2 to 3 lines diameter. Perianth concealed in wool, with 5 lobes closing over the fruit, 5 dorsal, erect, bifid appendages, and lower down 5 linear or spine-like appendages radiating from the base, all but the points concealed by the wool. Styles 2.—*Flora Austr.*, v., 192.

KOCHIA, Roth, in Schrad. Journ. Bot.

K. brachyptera, *F. v. M.* (Short wings.) A prostrate undershrub with ascending shoots, which are with the foliage clothed with long soft hairs, not forming cottony wool as in other species. Leaves alternate, linear, sessile, $\frac{1}{4}$ to $\frac{1}{2}$ inch long, flat. Flowers small, solitary in the axils; perianth ovoid, with 5 short, erect, obtuse, membranous lobes. Stamens 5. Styles 2, connate at the base. Fruiting perianth about $1\frac{1}{2}$ line diameter including the wings, the tube below the horizontal wing hemispherical, shortly hollowed at the base, with 5 vertical wings adnate to the horizontal one and tapering to the base, the summit very flat, bordered by an exceedingly narrow, rather thick, horizontal, 5-angled wing, the angles very acute, being the small points of the vertical wings.—*Flora Austr.*, v., 189.

K. sedifolia, *F. v. M.* (The leaves resembling those of some kind of *Sedum*.) A stout densely branched shrub of 2 or 3 feet, white or fulvous all over. Leaves oblong-clavate, soft, thick and often terete, about 2 or 3 lines long. Flowers globular, about 1 line diameter. Fruiting perianth with regularly circular wing expanding to 3 or 4 lines diameter. Styles usually 3.—*Flora Austr.*, v., 188.

SCLEROLÆNA, R. Br.

S. paradoxa, *R. Br.* A decumbent much branched undershrub clothed with loose cottony wool. Leaves narrow-linear, obtuse, soft and woolly, $\frac{1}{4}$ to $\frac{1}{2}$ inch long; the flowers in dense axillary clusters. Styles 2, connate to the middle. Fruiting perianths 10 to 20 together in a globular cottony or woolly mass, about $\frac{1}{2}$ -inch diameter, each perianth with 1 or 2 short dorsal spines. Seeds globular.—*Flora Austr.*, v., 196.

GREVILLEA, R. Br.

G. stenobotrya, *F. v. M.*, *Fragm.*, ix., 3. (Referring to the slender bunches of flowers.) A shrub with long, narrow, linear, undivided leaves. Flower-racemes $1\frac{1}{2}$ inch long, the flowers small, white, the outside slightly hairy. Style short, glabrous, with dilated stigma.

Order XCVIII. PHYTOLACCACEÆ.

TRIBE GYROSTEMONEÆ.

CODONOCARPUS, A. Cunn.

C. cotinifolius, *F. v. M.* (Leaves like those of the Wig-tree or Venetian Sumach.) A tall shrub or at times forming a tree 40 feet high. Leaves from broadly obovate to almost lanceolate, contracted into a rather long petiole, 1 to 2 inches long. Flowers diœcious or monœcious, usually the two sexes in separate racemes in the upper axils, sometimes forming a terminal panicle, the males on very short, the females on long pedicels. Perianth 2 lines long or smaller in the males, which contain 15 to 20 stamens. Fruit obconical, carpels 20 to 30.—*Flora Austr.*, v., 146.

SERIES MICREMBRYEÆ.

Order CIV. MONIMIACEÆ.

TRIBE ATHEROSPERMEÆ.

DAPHNANDRA, Benth.

D. aromatica (sp. nov.). (Bark and leaves of aromatic fragrance.) Tree of moderate size and sweet aromatic bark. Leaves opposite, lanceolate, entire or with few distant often indistinct teeth, 2 to 6 inches long, and from $\frac{1}{2}$ to $1\frac{1}{2}$ inch wide in the centre, with often a narrow elongated point, on petioles of 3 or 4 lines long; the principal lateral transverse veins joining far within the margin and forming a prominent intramarginal one. Flowers not seen. Fruit pedicellate, in very short panicles in the upper axils. Fruiting perianth-tube about 9 lines long, black and rough on the outside. Carpels densely hairy.

Hab.: Johnstone River.—*T. L. Bancroft*.

SERIES DAPHNALES.

Order CVI. PROTEACEÆ.

TRIBE GREVILLEEÆ.

HAKEA, Schrad.

H. pedunculata, *F. v. M.*, Melb. Chem. and Drugg., July, 1883. (Flowers pedunculate.) Leaves soon glabrous, spatulate-oblong, with a conspicuous petiole; veins faint. Umbels axillary on slender peduncles, slightly silky. Flowers small on pedicels the length of the flowers or longer. Style somewhat longer than the perianth; stigma lateral, hypogynous gland minute. Fruit lanceolate-ovate, nearly smooth, the pointed apex nearly straight. Seed-wing acute and but slightly decurrent along the nucleus.—*F. v. M.*, l.c. (*C. Int.*)

SECTION PUBIFLORE.

H. eriantha, *R. Br.* (Flowers hairy.) A tall shrub with silky shoots, the adult foliage glabrous. Leaves lanceolate-acuminate, acute or with a callous point, tapering into a short petiole, veins less except the midrib, color pale, 3 to 5 inches long. Flowers in axillary clusters. Pedicels silky-villous, 1 to 2 lines long. Perianth silky; tube about 3 lines long, reflexed under the almost acute limb. Torus small. Gland prominent, semiannular. Ovary shortly stipitate; style not long, with a large, dilated, stigmatic disk. Fruit 1 inch long, under $\frac{1}{2}$ -inch broad, slightly incurved, rather with a short incurved or straight beak, very obscure in the ripe fruit. Seed-wing shortly decurrent on the upper side of the nucleus.—*Flora Austr.*, v., 502.

Order CVII. THYMELÆACEÆ.

PIMELEA, B. et Sol.

P. penicillaris, *F. v. M.*, Melbourne Chem. and Drugg., Oct., 1883. (From the long hairs on the flowers resembling a painter's pencil.) A shrub with white tomentose branchlets. Leaves sessile, alternate or nearly opposite, crowded, ovate-lanceolate, flat, the 8 involucrel ones broadly cordate, all silky on both sides. Flower-heads containing small unisexual flowers clothed with long white hairs. Style glabrous, but the ovary silky towards the summit. Male flowers and fruit unknown.—*F. v. M.*, l.c. (*I. Ext.*)

P. simplex, *F. v. M.* (Simple.) An erect, slender, branching annual of about 1 foot, glabrous except the inflorescence. Leaves alternate, linear, about $\frac{1}{2}$ -inch long. Flower-heads small, depressed-globular, surrounded when young by 2 to 4 deciduous involucrel bracts like the stem-leaves, but smaller, and remaining dense and compact after flowering, the hirsute rhachis not exceeding 2 lines. Flowers small, the tube much shorter than the ovary, circumcised as in *P. trichostachya*.—*Flora Austr.*, vi., 23.

SERIES ACHLAMYDOSPOREÆ.

Order CIX. LORANTHACEÆ.

TRIBE EULORANTHEÆ.

LORANTHUS, Linn.

L. sanguineus, *F. v. M.* (Blood-colored flowers.) Glabrous and more or less glaucous, usually pendulous. Leaves mostly opposite, oblong-linear to linear-lanceolate and falcate, obtuse, 3 to 6 inches long, thick, obscurely veined or veinless. Flowers axillary, the common peduncle bearing 3 or 4 umbellate divaricate branches, as in *L. pendulus*, but each with only 1 flower. Calyx-border very short, truncate. Petals 5 or 6, free, narrow, about $1\frac{1}{2}$ inch long, the slightly dilated apex of the bud remarkably angular. Anthers adnate, linear. Stigma capitate, much larger than in the allied species.—*Flora Austr.*, iii., 393.

Hab: Gulf country.

Order CX. SANTALACEÆ.

TRIBE OSYRIDEÆ.

FUSANUS, R. Br.

F. acuminatus, R. Br. (Referring to the pointed leaves.) A small tree. Leaves opposite, lanceolate, acute, or sometimes when young with a short hooked point mostly 2 or 3 inches long, tapering into a petiole of 2 or 3 lines, but variable both in length and breadth, coriaceous. Flowers numerous in a terminal pyramidal panicle. Perianth $2\frac{1}{2}$ lines diameter, the lobes somewhat concave even when open. Free margin of the disk very prominent, broadly rounded between the stamens, which curve over the notches. Anthers very short. Style short, conical, or scarcely any, with a deeply 2 or 3-lobed stigma. Fruit globular, $\frac{1}{2}$ to $\frac{3}{4}$ inch diameter, with a succulent epicarp and a hard, bony, much-pitted endocarp, the perianth-lobes persisting on the top till the fruit is nearly ripe.—Flora Austr., vi., 216.

Hab.: Near the boundary of New South Wales.

SERIES UNISEXUALES.

Order CXII. EUPHORBIACEÆ.

TRIBE PHYLLANTHEÆ.

PHYLLANTHUS, Linn.

SECTION PARAPHYLLANTHUS.

P. lacunarius, F. v. M. (Referring to the furrowed capsule.) A small much-branched plant with glaucous flattened branches. Leaves very shortly petiolate, oblong or linear-cuneate, contracted at the base, under $\frac{1}{2}$ -inch long. Stipules minute. Flowers very small, monœcious, usually 1 female with 2 or 3 males on very short pedicels, lengthening out under the fruit to 1 line. Male perianth of 6 ovate often colored white or reddish segments of about $\frac{1}{4}$ -line. Glands small. Stamens 3, the filaments free; anther-cells parallel. Female perianth rather larger, the segments about $\frac{1}{2}$ -line long or slightly larger under the fruit. Styles short, spreading, 2-lobed. Capsule glabrous, depressed-globular, 3-furrowed. Seeds finely striate longitudinally.—Flora Austr., vi., 108.

TRIBE CROTONEÆ.

HOMALANTHUS (Page 481).

Since the printing of the "Synopsis of the Queensland Flora," Baron von Mueller has noticed in the "Australian Chemist and Druggist" that large losses have occurred to stockholders in the Illawarra district of New South Wales from the cattle feeding, in times of scarcity of other fodder, on the foliage of *H. populifolius*, Grah., the final cause of death being hæmaturia.

SUBCLASS GYMNOSPERMEÆ.

Order CXVIII. CYCADACEÆ.

MACROZAMIA, Miq.

[Substitute the specific descriptions here given for those given at page 500 of the Synopsis, the writer having in most cases redescribed the species from fresh specimens.]

M. Paulo - Guilielmi, *F. v. M.* Stems seldom if ever at all raised above the ground, but, like all this genus, forming a deep yam-like rhizome or stem beneath the surface. Leaves about 6 to 20, including the short portion (or petiole) without pinnæ, about 2 feet long, more or less spirally twisted; petioles 4 or 5 inches long and 3 or 4 lines broad, the base broader with thin scarious edges and very woolly, the upper surface as well as that of the rhachis flat, but rounded on the under surface. Pinnæ very numerous, often 100 on each side of the flat rhachis, narrow-linear, falcate, with from 3 to 5 rather prominent ribs on the under side, 4 or 5 inches long, 1 to $1\frac{1}{2}$ line broad, the apex often with 2 or 3 short teeth, the white callous base often prominent. Scapes woolly, surrounded at the base with linear woolly prophylla of about 1 inch long. Male cones conical, 3 or 4 inches long and about $1\frac{1}{2}$ inch diameter in the centre. Scales about $\frac{1}{2}$ -inch wide and $\frac{1}{4}$ -inch deep, the lower ones with a very small central point, the upper ones with points 2 or 3 lines long and slightly recurved and pungent; anthers small. Female cones conical, glabrous or with a few short silky hairs, about 5 inches long and 3 broad at the base. Scales about 1 to $1\frac{1}{2}$ inch broad and $\frac{1}{4}$ -inch deep, with a very prominent transverse ridge which forms in the centre an erect spine of about 1 inch long and not more than 1 line broad. Seeds angular, 1 inch in diameter, covered by a fleshy golden-yellow integument.

Hab.: Near Stanthorpe, and at Tinana Creek, Maryborough. The leaflets of these are narrower than on the Stanthorpe plants.

M. spiralis, *Miq.* Stems seldom if ever formed above the surface but forming long underground stems or rhizomes, the crown of leaves few, or on old plants in favored localities sometimes as many as 50. Leaves more or less spirally twisted, 2 to 4 or at times 5 feet long, while young covered by a loose wool, the broad expanded base bearing a dense coating of a mouse-colored wool, the petiole or portion of the rhachis without pinnæ nearly terete and from 1 to $1\frac{1}{2}$ foot long. Pinnæ erecto-patent, glossy and flexuose, 30 to 50 on each side of the rhachis, with seldom any abbreviated ones at the base, 6 to 13 inches long and 2 to 5 lines broad, the under side prominently striate, the white callosity at the base very prominent, the apex pungent, only toothed on very young plants. Scapes about 1 foot high, slightly woolly. Male cones cylindrical, 6 inches or more long, $1\frac{1}{2}$ inch in diameter, the central spine of scale reduced to a pungent point in the lower part of cone, but lengthening out in the upper portions to nearly $\frac{1}{2}$ -inch long. Anthers small and very numerous. Female cones more

or less woolly, 6 to 8 inches long and about 3 to 3½ inches in diameter. Scales about ¾-inch deep and 1½-inch wide, the transverse lines forming a sharp ridge running into an erect, lanceolate, flat, central spine of from ¼ to 2 inches in length. Seeds covered with a reddish integument about 1 inch long and nearly as broad.

Hab : About Brisbane.

M. Miquelii, *F. v. M.* (After F. A. Miquel.) Stems seldom formed above the ground, but very thick under the surface, bearing a fine crown of from 80 to over 100 leaves. Leaves 6 or more feet long, more or less falcate, bearing approximate pinnæ throughout their whole length, but those on the lower portion abbreviated to short spines; the rhachis somewhat angular or the upper side flat, the immediate expanded base bearing more or less wool. Pinnæ of a rather thin texture, the longest about 16 inches long and 3 or 4 lines broad, the upper ones gradually shorter, and those of the lower part of the leaf short and spine-like, all finely striated, the callosity at the base white or reddish, and the apex pungent. Scapes often long. Male cylindrical cones 6 to 10 inches long, 1 to 1½ inch diameter, the apex of the scales without points except in the upper portion; anthers densely covering the whole under surface of the scale. Female cones more or less cylindrical, 6 to 10 inches long and 3 to 5 inches diameter, the apex of scale rhomboidal, about 1 inch deep and 1½ inch wide, the transverse sharp ridge forming in the centre an ascending lanceolate point, short in the lower part of the cone, but often 1 to nearly 2 inches long near the summit. Seeds covered with a reddish integument, about 1 inch long and nearly as broad.

Hab. : Taylor's Range near Brisbane, and from there to Rockhampton.

M. mountperriensis (sp. nov., found at Mount Perry). Stems seldom formed above the ground, but at times producing one 6 to 9 inches high; the crown of leaves averaging about 80, the male plants being noticed to produce the greatest number and finest leaves. Leaves about 5 feet long, including the petiole or lower portion without pinnæ, which is from 16 to 18 inches; the immediate base swollen and clothed by a dense mouse-colored wool; petiole somewhat angular, the rhachis with a raised ridge throughout between the 2 rows of pinnæ. Leaves nearly straight, not curved or twisted, of a deep-green. Pinnæ about 50 on each side, the lower ones not abbreviated to spines, only slightly shorter; larger pinnæ about 10 inches long and 4 lines broad, the 10 or 12 longitudinal veins prominent on the under side, point attenuated and pungent, the white callosity at the base more or less prominent. Scapes about 1 foot long, and frequently surrounded at the base by numerous, densely woolly, linear-lanceolate prophylla of about 5 inches long and 2 to 4 lines broad. Male cone cylindrical, about 1 foot long and 1½ inch diameter, the scales with very short points except those of the apex of the cone; anthers densely covering the under surface of the scale. Female cone cylindrical, 8 to 16 inches long, 3½ to 4 inches

diameter, the somewhat swollen scales about 1 inch deep by $1\frac{1}{2}$ broad, with a very prominent, sharp, transverse ridge which in the centre forms an erect spine of from 1 to 2 inches of a flat linear-lanceolate shape. Seeds covered by a deep orange-colored integument about 1 inch long and nearly as broad.

Hab.: Mount Perry.

M. Douglasii, *W. Hill et F. v. M.* (After Hon. John Douglas.) Stems usually nearly all buried in the sand, but sometimes forming above ground to the height of 2 or 3 feet. Leaves 50 or more in a crown, 7 to 8 feet long, of a deep-green color, the rhachis somewhat angular and sulcate, the portion without pinnæ (petiole) about 2 feet long, the expanded base copiously woolly. Pinnæ about 160, the central ones 12 to 14 inches long and 5 lines broad, tapering to sharp points, the callosity at the base white but not large, often only to 2 lowest abbreviated, texture rather thin. Scapes about 16 inches long, woolly and somewhat angular, bearing several long, linear, woolly prophylla, which are closely appressed or adnate to the scape. Male cones. Female cones glabrous, 9 to 16 inches long, 4 or 5 inches diameter. Scales 1 to $1\frac{1}{2}$ inch deep and 2 to $2\frac{1}{2}$ inches broad, the transverse line often developed into a thin wing, with only a minute central point to those in the lower part of the cone, then gradually increasing in length to nearly $\frac{1}{2}$ -inch long in the upper part; immediately below this point is a prominent depression. Seeds covered with a reddish integument about $1\frac{1}{4}$ inch long.

Hab.: Frazer's Island.

M. Moorei, *F. v. M.* (After the director of the Sydney Botanic Gardens, Mr. C. Moore.) Stems 10 to 20 feet high and $1\frac{1}{4}$ to 2 feet in diameter. Leaves glabrous, numerous, rigid, 7 to 10 feet long, the rhachis angular, clothed to the base with pungent-pointed approximate pinnæ. Pinnæ about 50 on each side of the rhachis, attached to the edge of the flattish upper surface, about 12 inches long and 5 lines wide, those at the summit usually narrow, and the basal ones much abbreviated, all finely nerved. Scapes $1\frac{1}{2}$ to 2 feet high. Male cone cylindrical, about 12 inches long and 2 to $2\frac{1}{2}$ inches in diameter, the scales about from 3 to 5 lines across the top, with an erect central point about 5 lines long on those of the upper part of the cone but much shorter on those near the base. Female cone 2 to 3 feet long with a diameter of about 12 inches. Scales 2 to $2\frac{1}{2}$ inches across the top, the transverse ridge almost wing-like and forming in the centre a lanceolate erect spine 1 to $1\frac{1}{2}$ inch long and 4 to 5 lines broad. Nuts about $1\frac{1}{4}$ inch long, the integument reddish.

Hab.: About Springsure.

M. Denisonii, *C. Moore et F. v. M.* (After Sir Wm. Denison.) Stems 18 to 20 feet high and about 18 inches in diameter. Leaves having a more reddish purple hue than others of the genus, 7 to 10 feet long, angular at the base, and more or less tomentose. Pinnæ 8 to 18 inches long and about $\frac{1}{2}$ -inch

broad below the middle, the parallel veins rather obscure, slightly contracted at the base, and inserted longitudinally along the centre of the upper face of the rhachis. Male cones 10 to 15 inches long, 4 to 6 inches in diameter; the apex of the scales 1 to $1\frac{1}{2}$ inch broad, very thick, and produced into a short, triangular, or lanceolate almost obtuse point. Female cones $1\frac{1}{2}$ to 2 feet long, conical, 1 foot in diameter at the base, 6 inches at the top; scales shorter and broader than in the males, the apex tomentose-pubescent, often 2 inches broad, tapering into a short and very obtuse or rather longer and lanceolate recurved point. Seeds very oblique, about 2 inches long and 1 inch broad.—C. Moore's Paper to Roy. Soc. N S.W.

Hab.: Tambourine Mountain and other localities of South Queensland.

M. Hopei, W. Hill. (After Captain L. Hope.) Stems thick, erect, 20 to 60 feet high. Leaves 7 feet or more long, slightly puberulent on the rhachis and petioles, or a portion without pinnæ, which is about 2 feet long with an enlarged woolly base. Pinnæ about 80 on each side of rhachis, falcate, thick, and glossy, 8 to 12 inches long and $\frac{1}{2}$ to 1 inch broad, apex acuminate but not pungent, the base slightly contracted and inserted longitudinally on the upper surface of the rhachis, with the lower margin decurrent, the longitudinal veins parallel and numerous but not prominent. Prophyllus with a close woolly base tapering into an erect triangular beak of about 2 inches long. Scape stout, about $1\frac{1}{2}$ foot long. Male cones. Female cones tomentose, about 2 feet long and from 8 to 10 inches diameter. Scales 2 to 3 inches wide and about 1 inch deep, the edges thin and wavy, terminating in a blunt or more or less lobed reflexed apex. Seeds 2 to $2\frac{1}{2}$ inches long and 1 to $1\frac{1}{2}$ inch wide, angular, covered by a brownish-colored integument.

Hab.: Daintree and Johnstone Rivers.

Class II. MONOCOTYLEDONS.

SERIES MICROSPERMÆ.

Order CXXI. ORCHIDÆ.

TRIBE EPIDENDRÆ.

DENDROBIUM, Swartz.

D. speciosum, Sm. Var. *nitidum*, Bail., Proc. Roy. Soc. Ql., i. Stems numerous, $1\frac{1}{2}$ to 2 feet high, often of not more than $\frac{1}{2}$ -inch diameter, usually when old shining, fluted, with 3 to 5 lanceolate leaves at the summit. Leaves coriaceous, glossy, 6 to 7 inches long, $1\frac{1}{2}$ to 2 inches broad. Racemes 6 to 8 inches long, bearing from 24 to 30 white flowers. Outer segments of flower 6 to 7 lines long and about 2 lines broad, inner ones rather smaller. Labellum short, the lateral lobes marked with transverse purple lines, middle lobe apiculate, longitudinal plates yellow. (*C. Int. and I. Ext.*)

Hab.: Tropical Queensland.

D. speciosum, Sm. Var. *delicatum*, Bail., Proc. Roy. Soc. Ql., i. Stems numerous, often forming large patches on rocks, &c., slender in the upper part but often much enlarged at the base. Leaves 3 or 4 at the top of stem, 3 to 5 inches long, $\frac{1}{2}$ to $1\frac{1}{2}$ inch broad, the apex obtuse or emarginate, the texture rather thin. Racemes 1 or 2 from 7 to 8 inches long, with 8 or 9 distant, fragrant, white flowers. Outer segments 6 to 8 lines, the inner segments thinner and narrower than the outer but about the same length; spur rather long and curved. Labellum delicate white speckled with purple, the middle lobe apiculate, longitudinal plates yellow, column white. (*I. Ext.*)

Hab.: Herberton.

D. Stuartii, Bail., Proc. Roy. Soc. Ql., i. (After J. W. R. Stuart.) Stems slender, prominently striate, 6 to 18 inches long, leafy. Leaves lanceolate, 1 or 2 inches long. Racemes short, axillary, usually 3-flowered. Outer and inner segments about $\frac{1}{2}$ -inch long, yellowish-green; spur about 3 lines long, straight. Labellum tomentose, with fringed undulate edges, the disk-plates not prominent, obtuse-ovate, $\frac{1}{2}$ -inch long; lateral lobes none or scarcely any; veins red, forked, crossed by two longitudinal ones. Column short, white, the narrow wings edged with purple. Flowers fragrant. (*C. Int.*)

Hab.: Herberton.

D. Bairdianum, Bail., Suppt. to Synopsis of the Flora of Queensland. (After J. C. Baird.) Stems from a shortly creeping rhizome, 3 to 7 inches high, terete or furrowed, and slightly constricted at the nodes, attenuated towards the base, the upper part thickening to nearly $\frac{1}{2}$ -inch diameter. Leaves (only seen on a young growth) linear-lanceolate, about 2 inches long and $\frac{1}{2}$ -inch broad, keeled and prominently striate, the apex obliquely emarginate. Racemes erect on the old leafless stems, 2 inches long, bearing 3 flowers. Bracts small, lanceolate. Pedicels $\frac{1}{2}$ -inch long. Sepals or outer segments ovate, about 5 lines long, yellowish-green, the two lateral ones partly connate, and forming with the base of the column a blunt spur. Petals or inner segments of the same color, but shorter and thinner in texture than the sepals. Labellum rather longer than the other segments, thick, the lateral lobes oblong and of a dark-purplish color, the middle lobe somewhat reniform with the sides curved upwards, marked with dark-purple veins; disk white, with two raised plates which end at the base of the middle lobe. Column short, purple in front, wings narrow. Anther-lid small. (*C. Int.*)

Hab.: Herberton. Found by J. W. R. Stuart, Esq., between Herberton and Mourilyan Harbour. This species is allied to *D. æmulum* and *D. Kingianum*, but quite distinct from either.

D. Kingianum, Bidw. Var. *pallidum*, Bail., Proc. Roy. Soc. Ql., i. The clustered stems often densely matted together and thus forming large patches on the rocks of the Main Range. Stem 2 to 4 inches high, the base enlarged in pseudobulbs. Leaves of a thin texture, 2 to 3 inches long, about $\frac{1}{2}$ -inch broad near the base, and tapering towards the apex. Racemes slightly longer than the leaves, bearing 3 or 4 white or lilac-stained flowers. (*I. Ext.*)

Hab.: Main Range.

D. Adæ, *Bail.*, Proc. Roy. Soc., Ql. (After Mrs. J. W. R. Stuart.) Stems about 1 foot long, slender, furrowed, bearing at their summit about 3 lanceolate leaves 3 or 4 inches long, 1 inch broad, keeled underneath and rather thin in texture. Racemes terminal, 1 to 3 inches long, with 2 to 4 highly fragrant white flowers. Bracts small, lanceolate. Pedicels about $\frac{1}{2}$ -inch long. Sepals or outer segments about $\frac{1}{2}$ -inch long, somewhat ovate, the lateral ones slightly falcate, spur short and curved. Petals or inner segments shorter and narrower than the sepals. Labellum shorter than the other segments; lateral lobes glabrous and faintly marked with purple bars, middle lobe cordate and densely tomentose, 3 close raised lines along the disk reaching to the base of the middle lobe. Column white. Anther-lid white. Pollen-masses rather small, pale-yellow. (*C. Int.*)

Hab.: Herberston.

D. Keffordii, *Bail.*, Proc. Roy. Soc. Ql., i. (After W. R. Kefford.) Stems slender and very numerous in large masses, 1 to 4 feet high, often leafy throughout. Leaves linear-lanceolate, the apex rather obtuse, 3 inches long, about 3 lines broad near the base, texture thin, the sheathing base striate. Racemes lateral, numerous, shorter than the leaves and mostly 2-flowered. Flowers yellowish, speckled with purple, on pedicels of about 4 lines. Sepals or outer segments tapering from a broad into filiform points, about 1 inch long; the petals or inner segments of the same form but shorter than the sepals; spur short. Labellum 3 or 4 lines long, the middle lobe bordered by a dark-purple fringe, the point elongated and recurved. Disk yellow with 2 lines of rather prominent calli. Column slender. (*C. Int.*)

Hab.: Johnstone River. This species is nearly allied to *D. Baileyi*, F. v. M.

D. antennatum, *Lindl.*, in Hook. Lond. Journ. Bot., ii., 236. (Petals resembling the antennæ of some insects.) Leaves lanceolate, fleshy, obliquely emarginate. Racemes leaf-opposed, acuminate. Petals twice the length of the sepals, often 2 inches long and scarcely $\frac{1}{2}$ -line broad, reflexed. Labellum 3-lobed, the middle lobe ovate, acute, the disk with 5 elevated veins.

D. Johansonis, *F. v. M.* (After Miss Johnson, Surrey Hills, Sydney.) Stems somewhat fusiform, 15 to 18 inches high, the base terete, the swollen part and upwards corrugated, bearing at the summit a few leaves and several racemes of large white flowers. Leaves ovate, about $3\frac{1}{2}$ inches long, 2 inches broad, coriaceous. Racemes erect, rigid, 6 to 9 inches, bearing 3 or more flowers. Pedicels $\frac{1}{2}$ -inch long. Sepals lanceolate, acuminate, $1\frac{1}{2}$ inch long, white. Petals rhomboid, elongated to an acute apex, $\frac{1}{2}$ -inch wide in the middle, tapering to a ligulate claw. Labellum as long as the petals, the lateral lobes nearly $\frac{1}{2}$ -inch long and broad, and more or less stained with purplish-crimson; middle lobe ovate-lanceolate, about $1\frac{1}{2}$ inch long; on the disk between the lateral lobes is a rather thick, yellow, elongated, gland-like plate. Column short, more or less crimson. Capsule glabrous, bluntly ribbed, ovoid, bearing the persistent perianth.

D. Fitzgeraldi, *F. v. M.* in Melb. Chem., 1884. (After R. D. Fitzgerald, author of the beautifully illustrated work now being published in Sydney on Australian Orchids.) Stems tall and leafy, corrugated. Leaves lanceolate, 4 or 5 inches long and 1 inch broad, curved and twisted. Raceme long, slender, and pendulous, bearing numerous showy flowers of a purplish color, the segments very wavy, often of a whitish color outside; spur slender and prominent. Labellum as long as or longer than the other segments, the middle lobe very wavy; column short.

D. attenuatum, *D. Johnsonia*, and *D. Fitzgeraldi* are given as Queensland species in Baron Mueller's second annual supplement to the "Systematic Census of Australian Plants," but it is more probable that they belong to New Guinea and the South Sea Islands, and have reached that botanist by way of Queensland.

D. hispidum, *A. Rick. Taylora*. (After Norman Taylor.) Rhizome creeping, much matted and clothed with the torn old sheaths. Stems numerous, erect, 2 or 3 inches high, 1 line thick, bluntly ribbed and bearing at the summit a single leaf and 1 or more flowers. Leaf about 2 inches long and about 4 lines broad, prominently keeled underneath, oblong, emarginate. Pedicel at the base of leaf about 6 lines long, curved and supported by a scarious ribbed bract about 3 lines long and 1 line broad. Outer segments 2 or 3 lines long, the dorsal one narrower than the lateral ones; inner segments narrower and incurved, all white; spur short and broad. Labellum thick, middle lobe cordate, about 1 line broad, glandular, transversely furrowed, orange-colored. Column prominent, the narrow wings ending at the top in sharp incurved points. Anther-lid purple. (*C. Int.*)

Hab.: Herberton. First found by Norman Taylor at the Bloomfield River, and described by Baron Mueller in *Fragm.* viii., 150, as *Bolbophyllum*, Taylor; after which it was sent from near Herberton by J. W. R. Stuart, when, overlooking the description of Baron Mueller, I described it in the *Proc. Roy. Soc. Ql.*, vi., as *Dendrobium uniflorum*, but from further examination think it better placed as above, as a form of *D. hispidum*.

D. striolatum, *Reichb.* Var. *Beckleri*, *F. v. M.* Stem erect from a shortly creeping rhizome; branches few. Leaves few, those on the lower part of the stem erect, 3 to 6 inches long, slightly tapering to each end, the middle part about 4 or 5 lines diameter, the upper part of the stem slender and bearing much more delicate nearly terete leaves 2 or 3 inches long.

Hab.: Taylor's Range.

BULBOPHYLLUM, Thou.

B. purpurascens, *Bail.*, *Proc. Roy. Soc. Ql.*, i. (So called from its numerous small purplish flowers.) Rhizome creeping, forming dense matted patches. Pseudobulbs about 1 line long, often so close together as to give a moniliform appearance to the rhizome, the scarious scales prominent. Leaves 5 to 12 lines long, deep-green, thick and channelled above, the back convex, attached to the pseudobulb by a short stalk. Peduncles erect, filiform, 6 to 12 lines long,

with several white scarious bracts at the base and close under the flower. Flowers solitary, purplish. Outer segments or sepals about 2 lines long, striate, with 3 to 7 dark lines, broad, lanceolate, obtuse, or the dorsal one emarginate, pouch or spur short. Inner segments or petals about $1\frac{1}{2}$ line long, 1-nerved, narrow, lanceolate, with elongated points and glandular-ciliate margins. Labellum clawed, 2 lines long, dark-purple, lanceolate with fringed margins, 2-lobed at the base and a raised rib along the centre. Column white, short, the prominent wings ending in elongated points. Capsule oblong-ribbed, about 3 lines long and $1\frac{1}{2}$ line diameter. (*C. Int.*)

Hab.: On rocks, Herberton.

B. Bowkettæ, *Bail.*, Proc. Roy. Soc. Ql., i. (After Miss Bowkett.) Rhizome creeping, forming dense patches. Pseudobulbs oval-oblong, compressed, bluntly ribbed, 3 to 5 lines long, 2 to $2\frac{1}{2}$ broad. Leaves solitary on the pseudobulb, thick, dark-green, ovate to suborbicular, 4 to 6 lines long. Flowers solitary on scapes of about 4 lines long, articulate about the middle, just above a minute obtuse sheathing bract. Outer segments or sepals about 2 lines long, greenish-yellow, bordered by a purple line, and having 3 purple lines down the centre, the spur short. Inner segments or petals about half the length of the outer, and with only 1 central purple line. Labellum linear, thick, long as inner segments, purple with a yellowish tip. Column short, the front teeth erect, exceeding the anther-lid. (*C. Int.*)

Hab.: Herberton.

B. Elisæ, *F. v. M.* (After Eliza Kern.) Rhizome creeping. Pseudobulbs numerous, conical, about $\frac{1}{2}$ -inch long, and closely covered with longitudinal, thin, wrinkled or toothed ribs. Leaves solitary, narrow, oblong, 2 to 3 inches long, the midrib very prominent underneath. Racemes slender, about 6 inches long, bearing a few delicate flowers all turned to one side, white tinged more or less with pink on pedicels of 2 or 3 lines. Bracts small and narrow. Lateral sepals or segments linear-lanceolate, about $\frac{1}{2}$ -inch long, the oblique base adnate to the basal projection of the column forming a short pouch; dorsal sepal not half so long as the lateral ones; petals or inner segments still shorter, ovate-lanceolate. Labellum purple, about 2 lines long, with a very short, broad, concave claw, the lamina erect or spreading, oblong, thick and fleshy, grooved on the upper surface. Column short, with 2 prominent teeth.

Hab.: Bunya Mountains and Stanthorpe.

TRIBE VANDEÆ.

SARCOCHILUS.

S. platystachys (sp. nov.). (Alluding to the flat appearance of the raceme of flowers.) Plant epiphytal, with flattened stems extending to nearly 2 feet in length, well furnished throughout with leaves, flower-racemes, and roots. Leaves deep-green, oblong, 3 to 8 inches long and from 1 to nearly 2 inches broad. Racemes axillary on flattened peduncles of 4 or 5 inches, with an empty bract near the

base and 1 or 2 higher up; raceme about 8 inches long, flat, with a row on either edge of obtuse, imbricated, slightly falcate bracts which subtend the delicate flowers. Flowers on slender pedicels. Segments about 6 lines long, forming at their base a blunt spur similar to that in a *Dendrobium* flower, from which they taper to filiform points. Labellum 3-lobed, the lateral lobes broad and wavy with a small curved callus on the disk between them, middle lobe subulate. Column very short, white, winged; anther-lid ovate. Capsule erect, with numerous fine ribs, about 5 inches long, ending in a prominent beak.

Hab.: Johnstone River.—*Dr. T. L. Bancroft.*

The flowers are described from a few dry ones found on the live plants; they appear to be of a yellow and pink.

CLEISOSTOMA, Blume.

C. Keffordii, *Bail.*, in Rep. Ql. Accli. Soc., April, 1884. (After W. R. Kefford.) Stems elongated several feet, 3 or 4 lines thick, emitting strong, wiry, distant roots. Leaves coriaceous, 4 to 6 inches long, about 1 inch broad, the apex very obtuse, contracted at the base, the sheathing base strongly ribbed. Keel acute, and 3 or 4 more or less prominent veins on either side. Racemes lateral, flexuose, 6 to 9 inches long, 3 or 4 closely appressed obtuse bracts below the flowers. Flowers 16 to 20, yellowish-white on pedicels of about 5 lines. Outer segments or sepals, and the inner ones or petals, about 4 lines long and 2 lines broad, somewhat reflexed. Labellum with pouch about the length of the other segments, slipper-shaped, the lateral lobes white, with a boss-like gland in the centre of each on the inner side; middle lobe short; appendage within the pouch hornlike, glabrous. Column white, the wings joining in front and forming a prominent beak.

Hab.: Johnstone River. *S. Armitii*, *S. Macphersonii*, and *S. brevilabris*, at page 519, belong to this genus.

TRIBE NEOTTIEÆ.

PTEROSTYLIS, R. Br.

P. grandiflora, *R. Br.* (So named from its large flowers.) Stem slender, bearing 1 flower about 6 inches high, at time of flowering no rosette of leaves at the base. Stem-leaves lanceolate, acuminate. Galea over 1 inch long, abruptly curved forward about the middle, the petals as well as the dorsal sepals ending in front in short points; lower lip with the entire part broadly cuneate, fully $\frac{1}{2}$ -inch long, truncate, leaving a very broad, straight, and scarcely notched sinus between the lobes, which are very shortly dilated at the base, tapering into long, filiform, antenna-like points embracing the galea. Labellum oblong-linear at the base, tapering into a long, filiform, glabrous point somewhat clavate at the end; the basal appendage linear, curved, penicillate. Column-wings with an erect, linear, acute lobe at the front angle, the lower lobe oblong, obtuse.—*Flora Austr.*, vi.

Hab.: Mount Perry.

CALADENIA, R. Br.

SECTION CALONEMA.

C. Patersoni, R. Br. (After Col. Paterson.) Plant more or less hairy, 1 to 2 feet high, the upper portion and flowers often glandular-pubescent. Leaves oblong-linear or lanceolate, over 2 inches long. Flowers 1 to 3, color variable yellow, pink and purplish blotches, the bracts subtending, the pedicel small, linear. Sepals dilated at the base, the points long and very narrow, sometimes over 2 inches long. Petals shorter, not dilated at the base. Labellum rarely half as long as sepals, ovate-lanceolate, the margins more or less fringed, ciliate, or crenate, middle lobe recurved; calli numerous, linear or clavate, in 4 rows or more. Column as long as the erect portion of the labellum, shortly winged at the apex; anther-point prominent.—Flora Austr., vi., 381.

SERIES EPIGYNÆ.

Order CXXIVA. HÆMODORACEÆ.

[Placed as a tribe of *Amarylloideæ* in the first part of this work, page 535.]

TRIBE OPHIOPOGONEÆ.

OPHIPOGON, Ker. in Bot. Mag., t. 1063.

(So called from its name of "Snakesbeard" in Japan or China.)

Perianth superior, tube none. Segments 6, distinct, spreading, oblong. Stamens 6, affixed to the base of the segments; filaments short, erect; anthers oblong or linear. Ovary globose, 3-celled, with 2 ovules in each cell. Style erect, rather long, with a shortly 3-toothed stigma. Herbaceous perennial plants with grass-like leaves, the fibrous roots often thickening into tubers. Scape leafless.

O. japonicus, Ker. in Bot. Mag., 1063. A grass-like stoloniferous herb, the roots often thickening into slender tubers. Leaves narrow-linear, 3 to 6 inches long, 1 to $1\frac{1}{2}$ line broad, 5 to 7-nerved. Scape 2 to 4 inches long, naked, angular, bearing a loose raceme of a few flowers; pedicels articulate, drooping; bracts lanceolate, scarious, 2 to 3 lines long. Perianth pale. Seeds globose.

It is not quite clear whether this plant is indigenous or naturalised. It was found by Mr. W. R. Kefford in the Three-mile Scrub a few years ago.

SERIES CALYCINÆ.

Order CXXXIII. JUNCACEÆ.

TRIBE XEROTEÆ.

XANTHORRHÆA, Sm.

X. quadrangulata, F. v. M. (Alluding to the four angles of the leaf.) Stem a few feet high. Leaves slender, $1\frac{1}{2}$ foot long, 4-angular, somewhat flattened, about a line broad. Spike 3 or 4 feet long, scape about the same length, $1\frac{1}{2}$ inch thick. Bracts or bracteoles surrounding the flowers nearly as long as the outer perianth-segments, glabrous.

Outer segments oblong-spathulate, concave or almost complicate, very shortly acuminate, quite glabrous; inner segments obtuse, about 3 lines long, 3 or 5-nerved, the whitish shortly flattened apex very little exceeding the outer segments. Stamens not much longer than the perianth.—Flora Austr., vii.

Hab.: Mount Perry.

TRIBE EUJUNCEÆ.

JUNCUS, Linn.

J. planifolius, R. Br. (Alluding to its flat leaves.) Stock-tufted leaves, flat, grass-like, often 3 or 4 lines broad, with long imbricating sheaths almost distichous. Stems 1 to 2 feet high, with a terminal, compound, unequally branched cyme, the lower branches often clustered. Bracts all small and scarious, or rarely 1 or 2 leafy ones at the base of the inflorescence. Flowers brown, in globular clusters at the base of the ramification and ends of the branches. Perianth-segments about 6 lines long and very acute. Stamens 3. Ovary with 3 parietal placentæ, only very shortly connected at the base, and numerous ovules. Capsule mucronate, about as long as the perianth. Seeds ovoid, small.—Flora Austr., vii., 125.

Hab.: Waterfalls near Helidon.

SERIES GLUMACEÆ.

Order CXLIII. RESTIACEÆ.

HYPOLÆNA, R. Br.

SECTION EUHYPOLÆNA.

H. fastigiata, R. Br. (From the form of panicle.) Stems slender and much branched, 1 to 2 feet high, glabrous or with a short, loose, white tomentum, especially on the inflorescence; sheathing-scales dark, appressed, usually with an erect point. Male spikelets all pedicellate in a terminal panicle, oblong-linear or at length narrow-ovate, about 3 lines long or rather more when fully out; glumes of a rich-brown, rather broad, with a short point, a few lower ones empty. Perianth-segments 6, 2 outer ones complicate and acutely keeled, the third lanceolate, flat and rather acute, the 3 inner rather shorter and more obtuse. Anthers almost sessile, dorsally attached to very short filaments. Female spikelets solitary and terminal or rarely 2 or 3 clustered together, 2 to 3 lines long; glumes more acuminate than in the males. Perianth-segments 6, thinly scarious, very broad, about as long as the ovary. Styles shortly connate at the base. Nut hard, sessile, on a thickened receptacle.—Flora Austr., vii., 239.

Order CXLIV. CYPERACEÆ.

CYPERUS, Linn.

C. flavidus, Retz. (Yellowish.) Root fibrous; stem dwarf, triangular, leafless, smooth; leaves longer than the stem; floral leaves 2, shorter than the compound umbel. Spikelets crowded into roundish

masses, 1 to 2 sessile, 2 to 8 on short stalks, all lanceolar. Bracts chestnut-brown, each only with 1 stamen. Nutlets obcordate, triangular, short, somewhat rough.—*Kindly furnished by Baron Mueller for this work.*

Hab.: Near the border of New South Wales.

C. esculentus, Linn. (From the tubers being sometimes eaten.) Root creeping, branched, bearing tubers. Stem triangular, smooth, leafy only at the base. Leaves as long as the stem or longer, somewhat channelled, rough particularly towards the summit and along the keel; floral leaves 4 to 6, longer than the ample or compound umbel. Peduncles 7 to 10, the longer of these spreadingly branched towards the upper end. Spikelets 11 to 14, disposed in spikes, lanceolar or linear, compressed, each with 10 to 18 flowers. Bracts ovate-elliptical, keeled, blunt or hardly pointed, 7 to 9-nerved, yellowish-brown, green towards the keel. Nutlets elliptical, triangular, somewhat apiculated, grey-brown, about half as long as the bract; racheole membranous at the edges.—*Kindly furnished by Baron Mueller for this work.*

Hab.: Near the border of New South Wales.

C. tenuiflorus, Rottb. (Flowers slender.) Root creeping; stem acutely triangular, smooth, leafy at the base. Leaves flat, shorter than the stem; floral leaves about 4, longer than the compound umbel of spikelets. Peduncles corymbosely placed, about 7, at the upper part spreadingly branched. Spikelets 2 to 8, almost paniced, narrow-linear, compressed, containing 16 to 24 flowers. Bracts ovate, blunt, navicular, with 7 to 9 nerves of chestnut color. Style very long; nutlets egg-shaped and somewhat triangular; racheole membranous at the edges.—*Kindly furnished by Baron Mueller for this work.*

Hab.: Near the border of New South Wales.

C. lucidulus, Klein, in Link's Jahrb., iii., 86. (Shining.) Stem tuberous at the base, triangular, smooth. Leaves not much shorter than the stem, flat, rough at the margin; floral leaves 3 to 5, very long. Peduncles 6 to 13, umbel-like arranged. Spikelets 4 to 11, fasciculate-spicate, linear, compressed, 10 to 16-flowered. Bracts ovate, the upper ones short-pointed, navicular, 7 to 9-nerved, brownish-green with pale margin. Nutlets ovate-ellipsoid, triangular, pointed, brownish, dotted, somewhat shining, 3 or 4 times shorter than the bracts; membranes of the racheole receding.—*Kindly furnished by Baron Mueller for this work.*

Hab.: Near the border of New South Wales.

TRIBE CARICEÆ.

CAREX, Linn.

C. breviculmis, R. Br., Prod., 242; Flora Austr., vii., 445. Stems usually only a few inches high but sometimes reaching a foot. Leaves longer than the stem, and narrow, the upper ones subulate. Spikelets 2 to 5, narrow, cylindrical, about $\frac{1}{2}$ -inch long, the terminal one male, the lower ones female, or 1 or more of them with male

flowers in the upper half, all erect and sessile or the lowest shortly pedunculate, distant or the upper ones crowded together. Glumes loosely imbricate, thinly membranous, the females with a prominent keel produced into a fine point, the males obtuse or shortly mucronate. Utricle shortly stipitate, ovoid, usually longer than the glume but shorter than its point, very faintly or more distinctly many-nerved, glabrous or minutely pubescent, with a rather long conical beak. Style-branches 3.—*Flora Austr.*, vii., 445.

This little species has lately been met with near Brisbane by Dr. C. Prentice.

Order CXLV. GRAMINEÆ.

TRIBE AVENÆÆ.

DANTHONIA, DC.

D. pilosa, *R. Br.* (Referring to the loose hairs with which the plant is clothed.) A slender grass of 1 or 2 feet high, forming a radical tuft of narrow hairy leaves, the hairs at times long and spreading. Panicle narrow and dense, not much branched. Spikelets shortly pedicellate, about $\frac{1}{2}$ -inch long, the outer glumes about as long; flowering glumes 6 to 8, with lanceolate lobes tapering into fine awns, hairy on the margins only, very few hairs on the back except at the base.—*Flora Austr.*, vii., 594.

D. bipartita, *F. v. M.* Stems from an almost bulbous often woolly base, 1 to 2 feet high. Leaves flat but narrow, glabrous or sprinkled with a few hairs. Panicle almost reduced to a simple raceme of 3 to 6 inches. Spikelets few, on short, erect, distant pedicels, or the lower pedicels shortly branched, with 2 or 3 spikelets. Outer glumes herbaceous, many-nerved, 5 to 8 lines long, tapering into fine points. Flowering glumes 4 to 8, scarcely exceeding the outer ones, the oblique base a little more than 1 line long and broad, with a dense ring of long hairs under the lobes. Lobes narrow-lanceolate, very acute, unawned, 3 to 4 lines long, the central awn scarcely longer. Palea obtuse or truncate.—*Flora Austr.*, vii., 592.

TRIBE FESTUCEÆ.

GLYCERIA, R. Br.

(Referring to the sweet herbage.)

Spikelet several-flowered, pedicellate in a narrow or spreading panicle, the rhachis of the spikelet articulate under the flowering glumes, glabrous or hairy. Outer empty glumes obtuse or acute, unawned; flowering glumes convex on the back, 3 to 9-nerved, the nerves not reaching to the hyaline, obtuse, sometimes slightly denticulate apex. Palea nearly as long as the glume. Ovary glabrous. Styles distinct, very short, the plumose stigmas frequently more branched than in other genera. Grain glabrous, enclosed in the glume and palea but free from them.—*Flora Austr.*, vii., 656.

G. latispicea, *F. v. M.* (Alluding to the broad spikelets.) Stems erect, 2 or 3 feet high. Leaves flat, glabrous, the ligula long and jagged. Panicle narrow; branches short, erect, each bearing 1 to 3 spikelets, the lower ones distant. Spikelets broad, loose, and about $\frac{1}{2}$ -inch long, of a pale color; 6 to 12-flowered rhachis, and glumes glabrous or very minutely hairy. Outer glume obtuse, 5-nerved, flowering ones 3 or 4 lines long, 7 to 9-nerved, midrib reaching the obtuse hyaline apex, the lateral nerves faint. Grain oblong, concave on the face.—*Flora Austr.*, vii., 658.

Class III. ACOTYLEDONS or CRYPTOGAMS.

Order CXLVI. LYCOPODIACEÆ.

LYCOPIDIUM, Linn.

L. phlegmaroides, *Gaudich.* (*L. tetrapterygium*, *Bail.*, in *Proc. Roy. Soc. Ql.*, i.)

This species has the tassel-like inflorescence of *L. phlegmaria*, to which it should probably be placed as a variety, for its only distinction seems to be in the direction taken by the stem-leaves, which, instead of being scattered as in *L. phlegmaria*, form 4 even wings to the stem.

Hab.: On trees, Johnstone and other tropical rivers of Queensland.

SELAGINELLA, Spring.

The following three forms or species have usually been placed under *S. concinna*, Spring, as in the *Flora Austr.*, vol. vii. Mr. Baker, of Kew, however, in his recently published monograph of the genus, considers none of the Australian species identical with Spring's plant. It will be well, therefore, to distinguish them as follows. It may be remarked that the difference is prominently marked under cultivation, although not so evident in the dried specimens:—

S. australiensis, *Baker*, *Journ. Bot.*, 1883. The stems of this plant extend some distance, are strong, wiry, and furrowed; the leaves distant, spreading, and rigid on the main stem, but narrower and closer together on the ascending branches, all deep-green. Spikes terminal, about 8 lines long.

This species has the loose habit of growth of the next species, from which it is at once known by its rigid wiry character and deep-green color.

Hab.: Logan and Nerang Creek scrubs.

S. brisbanensis, *Bail.* This is an extremely delicate plant, its thread-like stems rambling to some distance; foliage not very dense; the whole plant at times having a somewhat bronze appearance. Leaves rather distant and of delicate texture. Spikes 3 to 6 lines long.

The spikes of this and *S. australiensis* are never so numerous and prominent as in *S. leptostachya*.

Hab.: Brisbane River Scrubs.

S. Bakeriana, *Bail.* (*S. leptostachya*, *Bail.*, *Proc. Roy. Soc. Ql.*, i.) Stems creeping and rooting, but sending up from the upper edge erect, dichotomously branched, short branches, the extremity of each branchlet terminated by a long, narrow, erect spike. Larger leaves

in 2 rows, distichously spreading, lanceolate, acute or obtuse, about 1 line long, the inner ones somewhat falcate, the lower part appressed, the upper part spreading, all sharply keeled, margins serrate. Spikes terminal, very numerous, 1 to 3 inches long and scarcely 1 line in diameter. Bracts acuminate, keeled, and closely imbricate in 4 rows, the tips scarcely spreading.

Hab.: Johnstone River.

This is one of the most beautiful of the genus. It forms very dense masses of dark-green foliage, almost every growth terminating a long slender spike of fructification. As I find from Mr. Baker's excellent monograph of the genus, just to hand, that the name *leptostachya* had been previously given to another species, I have attached Mr. Baker's name to it instead.

S. pumilio, *Spring*, Mon., ii., 241. Stems very slender, erect, nearly simple, under 1 inch long, the root-fibres confined to the base. Leaves of the lower plane spaced, ovate, acute, denticulate, $\frac{1}{4}$ -line long, membranous, nearly equal-sided; leaves of the upper plane one-third as long, ovate, acute. Spikes very short, resupinate. Bracts dimorphous; those of the upper plane ovate, acute, erecto-patent; of the lower plane ovate-cuspidate, ascending.

Hab.: Endeavor River.—*Baker's* Syn. Selaginella, 88.

Order CXLVIII. FILICES.

TRIBE HYMENOPHYLLÆ.

TRICHOMANES, Linn.

T. Filicula, *Bory*. Rhizome filiform, clothed with short dark hairs, densely matted. Fronds 1 to 3 inches high, pinnatifid, somewhat ovate in outline; segments linear, sometimes acute. Indusium cylindrical, tapering towards the base, the mouth with two narrow, prominent, acute lips.

Hab.: On wet rocks of the rivers of Tropical Queensland.

T. johnstonense, *Bail.*, Proc. Roy. Soc. Ql., i. Rhizome long, creeping, rigid, knotted, clothed with black bristle-like scales. Stipes somewhat angular, scarcely winged, 2 to 4 inches long, of a dingy-brown color, the immediate base scaly, as the rhizome. Fronds bipinnate, with deeply pinnatifid or bipinnate pinnules, 3 to 6 inches long, $1\frac{1}{2}$ to $4\frac{1}{2}$ inches broad, the rachis slightly winged, the linear segments very narrow and 1-nerved. Indusia few on the lower lateral segments of the pinnule, free, erect, much tapering towards the base, the orifice 2-lipped. Receptacle exerted, usually long.

Hab.: Johnstone River.

TRIBE POLYPODIEÆ.

SERIES A.

ASPLENIUM, Linn.

A. marinum, *Linn.* Var. *difforme*. Fronds 12 to 18 inches long, bi-tripinnate or the obtuse pinnæ more or less pinnatifid.

Hab.: Nerang Creek, &c., Southern Queensland.

A. resectum, Sm. Var. *australiense*, Bail. Rhizome shortly creeping. Stipes close together, slender, 4 to 11 inches long, glossy, nearly black. Frond pinnate, membranous, 6 to 13 inches long, with a rather long, caudate, serrate apex; lower pinnæ 3 or 4 inches long, and about $\frac{1}{4}$ inch broad at the base, from which they gradually diminish in size until they reach the tail-like apex of the frond. Pinnæ distinctly petiolulate except at the apex, where the fronds become pinnatifid, subfalcate, and the sterile ones often obtuse, but the fertile ones usually with elongated points, superior base, truncate, parallel with the rhachis, never auricled, inferior base for a third or more of their length cut off as it were in a curved line, so that the costule here becomes the margin, the whole of the rest of the pinnæ evenly serrated, veins forked. Sori oblong, occupying the centre of pinna, about an equal distance from the margin as from costule.

Hab.: Johnstone River.

LOMARIA, Willd.

L. lanceolata, Spreng. (Lance-like form of frond.) Rhizome thick, erect. Fronds 6 inches or more long, deeply pinnatifid or pinnate, the rhachis pale-colored. Segments of the barren fronds oblong or lanceolate, dilated at the base, contiguous and often confluent, the longer over 1 inch long and 4 to 6 lines broad, the lower one abbreviated to very short rounded lobes. Segments of fertile frond (or pinnæ) linear, 1 inch long and 1 to $1\frac{1}{4}$ line broad.

Hab.: Johnstone River.

A small plant of this fern was amongst the plants collected by Mr. W. R. Kefford on the Johnstone, and from imperfect specimens I mistook it for *L. membranacea*.

SERIES B.

POLYPODIUM, Linn.

P. confluens, R. Br. Var. *lobatum*. Fronds deeply and variously lobed, and larger than in the normal form.

Hab.: Helidon Waterfalls.

P. irioides, Poir. *Lobatum*. Rhizome creeping, somewhat fleshy, when above the surface of the ground nearly glabrous, with a few dark scales. Fronds crowded, pinnatifid, undulate, 2 to 3 feet high, lobing very variable, in the centre of the frond 5 or 6 inches long and about 1 inch broad, the apex very obtuse or with long acuminate points, the upper part of frond entire or with short, broad, blunt lobes, the apex very blunt or finely acuminate, the lower part of frond decurrent on to the very short stipes; the main midrib and those of the few larger lobes prominent, the primary veins slightly prominent, but the numerous reticulations of the veinlets concealed in the substance of the frond. Sori scattered, numerous, and of irregular size, oval or orbicular, very slightly sunk in the substance of the frond, and scarcely showing on the upper surface.

Hab.: Near Maryborough.

This handsome fern seems to connect in some measure two very different ferns, for in most respects it approaches *P. irioides*, still in some points it comes near *P. Phymatodes*.

P. rigidulum, Sw. Var. *cristatum*. The apex of the pinnæ is dichotomously divided into numerous segments forming a tassel.

This beautiful form was found by Mr. H. B. Fraser near Boolboonda.

MENISCIUM, Schreb.

Sori oblong or linear or sometimes orbicular and geminate, arising from the transverse connivent veinlets. No indusium. Veins or costules pinnated from the costa; veinlets numerous, the opposite ones uniting in an arc or angle, and sending out from that angle a free or continuous veinlet. Fronds simple or pinnated.—*Hooker's Species Filicum*, v., 162.

H. triphyllum, Sw. Rhizome long, creeping, subulato-paleaceous; stipites pale-brown, glabrous, 4 to 5 inches long of the sterile, 1 foot or more long of the fertile ones; fronds coriaceo-membranaceous, 3 to 5-foliolate, subdimorphous; pinnæ 3 to 5 inches long, $\frac{1}{2}$ to 1 inch broad, smaller and narrower in the fertile fronds; terminal pinna always the largest and long-petiolate, all of them oblong, acuminate, obtuse, or cuneate or subhastate at the base, the margin repando-dentate or nearly entire; venation subpubescent beneath; soriferous veins 4, 7, or 8-arched, the sori extending the whole length of the transverse veinlet between the costules.—*Hooker's Species Filicum*, v., 163.

Hab.: Daintree River, in Baron Mueller's notice, in the "Victorian Naturalist," October, 1885, of a few plants collected by Dr. Lucas in North Queensland.

ACROSTICHUM, Linn.

A. Taylori, Bail., in Rep. of Ql. Accli. Soc., April, 1884. (After Dr. Norman Taylor.) Fronds scaly, somewhat tufted from a short, creeping, knotted rhizome, stipes of fertile fronds from under 2 inches to 5 inches long, slender, those of the sterile fronds usually shorter; fronds pinnate in the lower, pinnatifid in the upper part, and usually terminating in a narrow, tail-like, proliferous apex; pinnæ obtuse-oblong, very irregularly lobed, 1 to 3 inches long, 3 to 9 lines broad. Veins forming a row of long costular areoles, the rest free to the margin, where one often is produced into a seta in the sinus.

Hab.: On wet rocks, Johnstone River.

Very near *A. repandum*, Bl., but a much smaller plant with a closer habit.

Order CXLIX. MUSCI.

DICRANEÆ.

DICRANELLA, C. M.

D. tenax, C. M.

TREMATODON, Rich.

Usually short, tufted, annual, pale-green mosses, growing on earth. Leaves very slender. Fruit-stalk terminal, flexuous or coiled. Capsule oblong, cernuous, with a long narrow neck (struma),

annulate; teeth 16, in 1 row, subulate, transversely barred, 2-fid, often unequally, rough and granulated. Operculum long, beaked. Calyptra cuculate, inflated.—New Zealand Flora.

T. suberectus, *Mitten.*

Hab.: Mount Perry.

DICRANUM, Hedw.

D. calymperidium, *C. M.*

SCLERODONTIUM, Schwægr.

(Referring to the hard teeth of the peristome.)

Calyptra cylindrical, subulate, split at the base. Sporangium inequilateral. Peristome of 16 simple distinct teeth, perforated by longitudinal openings.

S. pallidum, *Hook.* (*Leucoloma Sieberianum.*)

Hab.: Mount Perry.

LEUCOBRYEÆ.

OCTOBLEPHARUM, Hedw.

(Referring to the eyelash-like teeth of peristome.)

Calyptra long, conical, entire. Sporangium terminal, equal at the base. Operculum acuminate. Peristome consisting of 8 undivided teeth, subulate, imperforate, erect.

O. albidum, *Linn.* (Leaves white.)

Hab.: On epiphytcal orchids, Tropical Queensland.

SYRRHOPODONTÆ.

SYRRHOPODON, Schwægr.

S. mamillosus, *C. M.*

Hab.: Nerang Creek.

TORTULEÆ.

WEISIA, Hedw.

W. viridula, *Brid.*

Hab.: Mount Perry.

ORTHOTRICHEÆ.

MACROMITRIUM, *Brid.*

M. Scottiæ, *C. M.* (After Miss Scott.)

Hab.: Near Brisbane.

M. pallido-virens, *C. M.*

Hab.: Nerang Creek.

FUNARIEÆ.

ENTOSTHODON, Schwægr.

E. cuspidatus, *F. Kiar* (sp. nov.). (Cuspidate leaves.)

Hab.: Mount Perry.—*Jas. Keys.*

E. ampullaceus, *C. M.*

Hab.: Brisbane.

FUNARIA, Schreber.

F. sphærocarpa, *C. Muell.* (Round-fruited.)

Hab.: Near Brisbane.

LEPTANGIUM, Mont.

Minute tufted moss, growing in vegetable soil, having a succulent subterranean stem and very short branches. Leaves concave, nerveless; cells large, lax. Fruit-stalk terminal, extremely short. Capsule almost sessile, globose; mouth dilated; peristome none. Operculum conical. Calyptra minute, fugacious.—*Hooker's New Zealand Flora.*

L. repens, *Hook.* (*Anictangium* and *Gigaspermum*.) (Referring to its creeping habit.)

Hab.: Mount Perry.

BRYEÆ.

BRYUM, Linn.

B. coronato-affine.

Hab.: Brisbane River.

B. (Eccremothecium) dichotomum, *Hedw.* (*B. pachytheca*, *C. M.*)

Hab.: Mount Perry.

B. angelophyllum, *C. M.* (Referring to the vase-like form of leaves.)

Hab.: Brisbane, on damp earth.

RHIZOGONIUM, Brid.

R. spininerve, *Brid.*

Hab.: Nerang Creek.

HYOPTERYGIEÆ.

HYOPTERYGIUM, Brid.

H. rotulatum, *Hedw.*

Hab.: Nerang Creek.

RHACOPILEÆ.

RHACOPILUM, Brid.

R. tomentosum, *Brid.*

Hab.: Mount Perry.

HOOKERIEÆ.

DISTICHOPHYLLUM, *zy.* Molkenboer.

D. (Mniadelphus) Baileyanum, *C. Muell.*

Hab.: On roots of trees, Helidon Waterfalls.

NECKEREÆ.

CRYPHÆA, Brid.

C. tenella, *Hornsch.*

Hab.: Brisbane scrubs, on bark.

NECKERA, *Hedw.***N. Baileyana**, *C. Muell.*

Hab.: Southern Queensland.

N. pennata, *Haller.*

Hab.: Mount Mistake.

HOMALIA, *Brid.*

Small, bright-green, shining, creeping, stoloniferous, monoecious mosses; stems quite prostrate or suberect, pinnately branched; branches flat. Leaves distichously imbricated, often subsecund, but inserted 8-fariously, flattened, the lateral oblique, unsymmetrical, vertical, inflexed at the base on one side; nerve short or none; cells very minute, narrow. Fruit-stalk lateral, long, slender, curved at the tip. Capsule ovoid, drooping; annulus obscure; peristome double, outer of 16 lanceolate teeth marked with a middle line, inner surface trabeculate, inner membrane cut to the middle into 16 keeled teeth. Operculum beaked. Calyptra cucullate.—*Hooker*, in *New Zealand Flora*.

H. Baileyana, *C. M.* (sp. nov.) (After F. M. Bailey.)

Hab.: Southern Queensland.

GAROVAGLIA, *Endl.***G. (Euptychium) neocaledonica**, *Schyr.*

Hab.: Brisbane River.

PTEROBRYUM, *Hornsch.***P. (Trachyloma) planifolium**, *Hook.*

Hab.: Nerang Creek.

STEREODONTEÆ.

ACROCERATIUM, *Mitten.***A. politum**, *J. Hook.* (*Orthorrhynchium Hampeanum*, *C. M.*)

Hab.: Coast scrubs of Tropical Queensland.

A. cymbifolioides, *C. M.* (Under *Orthorrhynchium*.)

Hab.: Southern Queensland.

HYPNEÆ.

EURHYNCHIUM, *Sch.*

(Well-beaked, alluding to the operculum.)

Calyptra fugacious. Capsule on a smooth or pubescent pedicel but horizontally, turgid, oval or oblong, incurved. Operculum produced into a more or less elongated beak. Annulus compound or rarely absent.

E. remotifolium, *Grev.*

Hab.: Nerang and Logan.

HYPNODENDRON, C. M.

H. flagellare, *Angstr.*

Hab.: Mount Perry and Nerang Creek.

H. curvato-comosum, *C. M.*

Hab.: Mount Perry.

H. pterobryoides, *C. M.*

Hab.: Nerang Creek.

H. eflagellare, *Angstr.*

HYPNUM.

H. (Cupressina) umbilicatum, *C. M.*

Hab.: Nerang Creek.

H. (Aptychus) brachytheciella, *C. M.*

Hab.: Brisbane.

H. (Aptychus) exalare, *C. M.*

Hab.: Brisbane.

H. (Heterophyllum, Schyr.) Keysi, *P. Kær.*

Hab.: Mount Perry.

H. (Drepanocladus) strictiusculum, *C. M.*

Hab.: Southern Queensland.

THUIDIUM, Schim.

T. suberectum, *Hampe.*

Hab.: Mount Perry.

T. suberectum, *Hpe.* Var. *byssoides*.

Hab.: Mount Perry.

T. protensulum, *C. M.*

Hab.: Mount Perry.

POLYTRICHEÆ

DAWSONIA, *R. Br.***D. superba**, *Grev.*

Hab.: Nerang Creek.

SPHAGNEÆ.

SPHAGNUM, *Dill.***S. cymbophyllum**, *F. v. M.* *S. cymbifolioides*, *C. M.*

Hab.: Nerang Creek.

S. cuspidatum, *Ehrh.* (Leaves cuspidate.)

Hab.: Maroochie.

Order CL. HEPATICÆ.

METZGERIA, *Raddi.*

Fronds more or less branched, flat, linear; midrib distinct. Inflorescence diœcious. Fruit from the lower surface of the frond, on the midrib. Involucre a ventricose 2-lipped scale. Perianth none. Calyptra ascending, obovoid, rather fleshy. Capsule on a long

fruit-stalk, ovoid; elaters adhering to the tips of the valves, with 1 spiral fibre. Antheridia 1 to 3, from the midrib beneath the frond in a 1-leaved involucre. Ovoid buds occur on the narrow tips of the fronds.—*Hooker's New Zealand Flora*.

M. hamata, *Linderb.*

Hab.: Southern Queensland.

M. furcata, *Nees*.

Hab.: Keppel Bay.

Order CLI. CHARACEÆ.

NITELLA, Agardh.

N. cristata, *Al. Br.*

Hab.: Waterholes about Highfields.

N. diffusa, *Al. Br.*

Hab.: Waterholes about Fassifern.

N. leptosoma, *N.*

Hab.: Mount Perry and near Brisbane.

CHARA, Linn.

C. gymnopitys, *Al. Br.*

Hab.: Ithaca Creek.

C. g. var. æquistriata micrantha.

Hab.: Main Range.

Order CLII. LICHENES.

TRIBE USNEEI.

USNEA, Dillen.

U. angulata, *Hook. et Tayl.*

Hab.: On trees, Taylor's Range.

U. dasypogoides, *Nyl.*

Hab.: Mount Perry and Milora.

U. dasypogon, *Ach.*

Hab.: Main Range.

ALECTORIA, Ach.

Thallus terete or compressed, erect or pendulous, filiform, intricately branched; axis hollow or spongy. Apothecia usually dark-colored, with a thalline border; paraphyses not separating; spores ellipsoid. Spermatogonia with acicular spermatia.—*New Zealand Flora*.

A. australiensis, *Chas. Knight* in Bailey's paper, *Proc. Roy. Soc. Ql.*, i.

Called "Vegetable Horsehair"; found at Taylor's Range and Nerang Creek on stems of trees and decayed sticks and leaves.

TRIBE RAMALINEI.

RAMALINA, Ach.

R. minuscula var. alba, *Chas. Knight*.

Hab.: Mount Perry.

TRIBE PARMELIEI.

STICTA, Ach.

S. flavicans, *Hook. et Tayl.*

Hab.: Main Range.

S. Camaræ, *Muell. Arg.*

Hab.: Main Range.

STICTINA, Nyl.

S. Dozyana, *Mont.*

Hab.: Main Range.

RICASOLIA, De Notaris.

R. rhapsispora, *Chas. Knight* in Bailey's paper, Proc. Roy. Soc. Ql., i.

PARMELIA, Ach.

P. sphærospora, *C. Knight* in Trans. Lond. Linn. Soc., 1882.

Hab.: On rocks, Glasshouse Mountains.

P. caperatula, *Nyl.*

Hab.: Main Range.

PHYSCIA, Nyl.

P. leucomela, *Mich.* Var. *angustifolia*, *Mey. et Hot.*

Hab.: Nerang Creek.

P. stellaris, *Fr.*

Hab.: Milora and Mount Perry.

P. limbata, var. *minor*, *C. Knight.*

Hab.: Mount Perry.

SERIES E. PLACODIEI.—TRIBE LECANOREI.

PANNARIA, Delise.

P. soorediata, *C. Knight* in Bailey's paper, Proc. Roy. Soc. Ql., i.

Hab.: On bark, Pimpama.

LECANORA, Nyl.

L. (Hæmatomma) Babingtonii, *C. Knight.*

Hab.: On bark, Brisbane River scrubs.

L. subfusca, var. *umbrina.*

Hab.: Mount Perry.

L. pallescens, *Ach.*

Hab.: Mount Perry.

L. (Aspicilia) melanommata, *Chas. Knight* (sp. nov.).

Thallus e dilutissime cinereo albus minute areolatus, ambitu subeffiguratus, areolis planis varie angulosis tenuibus lævibus discretis, hypothallo atro inter areolas denudata. Apothecia minutissima (diam. 0·27 mm. vel minora), atra unum vel raro duo in singulis areolis immersa, disco thallum æquante, immarginata, excipulo proprio nullo, hypothecio incolore crasso, paraphysibus gracilibus non discretis apice nigrescentibus. Sporæ ellipsoideæ, incolores, longit. ·01, crassit. ·007 mm. Ad saxa.

Hab.: Mount Perry, on rocks.

L. (Aspicilia) lævissima, *C. Knight* (sp. nov.).

Hab.: Mount Perry.

L. atra, var. **immarginata**, *C. Knight*. Thallus tuberculosus albus. Apothecia atra *innatæ* planæ nudæ; hymenium violaceo-nigrum *thallo enatum* crassum, at ambitu attenuatum, excipulo proprio nullo. Sporæ longit. '009, crassit. '0075 mm. Ad cortices arborum.

Hab.: Mount Perry.

L. subundulata, *C. Knight* (sp. nov.).

Hab.: Mount Perry.

PERTUSARIA, DC.

P. petrophyes, *C. Knight*.

Hab.: Mount Perry.

P. thiospoda, *C. Knight*.

Hab.: Mount Perry.

P. velata, *Turn.*

Hab.: Mount Perry.

THELOTREMA, Ach.

T. megalophthalmum, *Muell. Arg.*

Hab.: On bark, Main Range.

T. trypethelioides, *C. Knight* in Bailey's paper to Roy. Soc. Ql., i.

Hab.: On bark, Brisbane scrubs.

T. compunctum, *Smith*, Ach. Syn., p. 145, Nyl. Lich. Novo-Grau, p. 39. Thallus tenuis cinereo-albus. Apothecia minutæ (diam. 0·3 mm.), valde numerosa, verrucis thallinis parvis convexis immersa, ostiolo rotundo prominulo minuto (diam. 0·1 mm.), excipulo proprio albo. Sporæ normaliter murali-divisæ (loculis seriebus transversis non plus quam 7 medio 3 in quavis serie) fuscae, longit. '025, crassit. '01 mm. Ad cortices arborum.

T. heterosporum, *C. Knight* (sp. nov.). Thallus e glauco albus mediocre tenuis effusus inæqualis. Apothecia numerosa, primitus verrucas thallinas parvas discretas vel passim aggregatas efformantia, demum late irregulariter expansa (lat. ad 1·5 mm.), margine thallode albo tenui elevato irregulari nonnihil granuloso, excipulo proprio deficiente, disco concolore vix thallum æquante demum cinereo-nigrescens. Sporæ normaliter ellipsoideæ biloculares fuscae nonnihil subfusiformes rare quadriloculares longit. 0·18, crassit. '01 mm. Ad muscos.

ASCIDIUM, Fée.

A. octoloculare, *C. Knight* in Bailey's paper to Proc. Roy. Soc. Ql., i.

PORINA, Ach.

(So named from the crumbling nature of the plants.)

P. enteroxanthum, *Chas. Knight* (sp. nov.). Thallus ex albo glaucescens, verrucis fertilibus rotundis confertis. Apothecia in verrucis convexis intus ochraceis (diam. 0·7 ad 1 mm.) immersa,

osteolis fusciscentibus rotundis obtuse marginatis (diam. circa 0.15 mm.) margine dilutiore colorato; hymenium excipulo proprio sat crasso demum fuscescente cinctum, paraphysibus subtilissimis. Sporæ fusiformes incolores 4 to 8-septatæ nonnihil inordinate minute loculares muriformesque, long. 0.7, crassit. 0.15 mm. Ad cortices.

Hab.: Mount Perry, on bark.

The spores vary greatly in length and breadth, and in the number of septa—sometimes muriform, with four transverse cells diminishing in number towards either end.

P. pustulosa, *Krph* (sp. nov.) Thallus glaucus colliculosus vel grosse ruguloso-inæqualis tenuis fragilis laxè adhærens, verrucis e gonidiis in maximam partem constantibus, intus ochraceis. Apothecia immersa, perithecio integro globoso ochraceis, paraphysibus subtilissimis. Sporæ in ascis 5-6-næ incolores fusiformes murali-divisæ longit. 13 mm., crassit. .032 mm.

Syn.: *Porina endochrysa*, Bab. (non Montagne). *Thelenella Wellingtonii*, Stirton. Allied to *Verr. eminentior*, Nyl.—*C.K.*

Hab.: On trees, Main Range.

P. melospora, *C. Knight* (sp. nov.) Thallus e cinereo virescens tenuis inæqualis, verrucis numerosis mastoideis (diam. 1 mm.) intus ochraceis, ostiolo fuscescente. Apothecia immersa, perithecio globosa pallido, paraphysibus subtilissime capillaribus. Sporæ incolores fusiformes 6-septatæ v. murali-divisæ, longit. .05 ad .068 mm., crassit. .012 ad .016 mm. Ad cortices arborum.

Perhaps only a variety of *P. pustulosa*, *Krph.*, but the spores much smaller and frequently merely septate.—*C.K.*

Hab.: On trees of Main Range.

P. exasperata, *C. Knight* (sp. nov.) Thallus ex albo-olivaceo valde rugoso-inæqualis exasperatus, linea atra limitatus; verrucæ apotheciorum numerosæ concolores mastoideæ sæpe glomeratim confluentes et multipunctatæ. Apothecia in thallo (intus albo) immersa, perithecio integre globoso pallido-fuscescente, ostiolo nigrescente latius aperto, paraphysibus subtilissime capillaribus. Sporæ in ascis 8-næ fusiformes utroque apice acutatæ incolores 5-9-septatæ, longit. .043 ad .05 mm., crassit. .008 ad .011 mm.

Differs from *P. polycarpa*, Muell. Arg., in the broader spores, their more numerous septæ, and the extremely rough rugose thallus. Perhaps a variety only of *P. mastoidea*. In some specimens the thallus is everywhere tomentose, and margin of ostiolum elegantly fringed with white isidiose granules, probably mere fungoid growth.—*C.K.*

Hab.: On trees, Main Range.

P. limitata, *C. Knight* (sp. nov.) Thallus olivaceo-virescens tenuis arete in matrice cohærescens æqualis minute grandulosus, hypothallo atro limitatus, aliquando per hypothallum denudatum discontinuus, verrucis apotheciorum mastoideis (9 mm. latis) intus dilute fuscescentibus. Apothecia immersa perithecio globoso pallido, ostiolo fuscescente. Sporæ incolores elongato-fusiformes 5-9-septatæ rarissime murali-divisæ, longit. .06 mm., crassit. .007 mm. Ad cortices arborum.

Differs from *P. mastoidea* in the color of the thallus and the narrow spores.—*C.K.*

Hab.: On trees of Main Range.

P. farinosa, *C. Knight* (sp. nov.). Thallus e cinereo pallido-viridescens tenuis subinæqualis, minutissime squamosus vel farinaceus, effusus; verrucæ apotheciorum hemisphericæ numerosæ intus ochraceæ, ostiolo fusco nudo. Apothecia immersa, perithecio ochraceo integre globoso, paraphysibus subtilissimis. Sporæ in ascis 8-næ incolores fusiformes creberrime murali-divisæ, longit. circa .115 mm., latit. .03 mm. Ad cortices arborum.

Hab.: On trees, Main Range.

TRIBE LECIDIÆ.

CÆNOGONIUM, Ehrenb.

C. interplexum, *Nyl.*

Hab.: On bark, Brisbane scrubs.

C. botryosum, *C. Knight* (sp. nov.). Thallus dense velutinus flavescenti-virens tenuis e gonidiis globosis (lat. .025 mm.) commistis cum filamentis paucis tenuissimis (crassit. .002 mm.) formatur, gonidiis funiculo brevissimo invicem cohærentibus, nunc concretis nunc in catenam longam junctis. Apothecia albino-aurantiaca plana, margine pallido, hypothecio incolorato, paraphysibus clavatis subdiscretis. Sporæ 8-næ, in ascis clavatis, simplices vel 1-septatæ ellipsoideæ incoloratæ longit. .01 mm., crassit. .004 mm. Moniliform granulæ gonimæ (plumbeo-cærulæus in hyaline nodules) occasionally found in the neighborhood of the apothecia imbedded in the midst of bright-green gonidia.

Closely allied to *C. moniliforme*, Tuck. Possibly may be the same, but Tuckerman's description is not in sufficient detail to enable one to decide with any confidence.—*C. Knight*.

Hab.: On bark of trees, Mount Perry.

LECIDEA, Ach.

L. (Biatorina) planella, *Nyl.*

Hab.: On bark, Enoggera scrubs.

L. (Bilimbia) quadrilocularis, *C. Knight* in Bailey's paper to Roy. Soc. Ql., i.

Hab.: On bark, Lytton.

L. (Psora) rhyoderma, *C. Knight*, Lich. of N.Z.

Hab.: On bark, Fassifern.

L. (Bombyliospora) inflexa, *C. Knight* (sp. nov.). Thallus cinereo-glauescens inæqualis rugosus non-tuberculosus continuus. Apothecia atro-fusca (diam. 2 mm.) margine obtuso fusco-cinereo elevato inflexo persistente; excipulo proprio atro-fusco (textura ad lateres distincte radiante, infra obscura) hypothecio dilute colorato tenui, paraphysibus connexo-ramosis grumosis indistinctis. Sporæ solitariæ 5-septatæ nonnihil subcurvatæ incolores longit. .08, crassit. .025 mm. Ad cortices arborum.

L. (Buellia) substellulata, *C. Knight* (sp. nov.). Thallus albidus *minute areolatus hypothallo nigro*. Apothecia *areolis immixta* atra persistenter plana leviter elevata (diam. ad 0·7 mm. v. minoræ) margine concolore persistente, excipulo proprio crasso atro e hypothallo enato, paraphysibus adglutinalis apice fuscis tumidulis. Sporæ ovoideæ fuscae longit. 0·12, crassit. 0·075 mm. Thallus Ky x C. or.

The apothecia of *L. stellulata*, Tayl., are urceolate, scarcely raised to the level of the thallus, and about half the diameter of those of *L. substellulata*, and, as in the Lichen under consideration, arise from the black hypothallus.

L. plurilocularis, *Nyl.* Var. *pruinosa*, Muell. Arg.

Hab.: Mount Perry.

L. (Blatora) scabrida, *C. Knight* (sp. nov.). Thallus olivaceo-cinereus e granulis minutis globosis scabridus, normaliter continuus sed matrice rimosa-fissa. Apothecia adnata plana corneo-fusca v. fusca nonnihil deformia v. perinde quasi syncarpa (diam. circa 0·8 mm.) margine tenui, disco dilutioræ sæpe flexuosa, excipulo proprio dilute colorato radiante, paraphysibus adglutinalis apice subcoloratis. Sporæ simplices ellipsoideæ incolores longit. 0·13 mm., crassit. 0·08 mm. Allied to *L. decolorans*.

Hab.: On bark, South Queensland scrubs.

L. (Buellia) stellulata, *Tayl.*

TRIBE GRAPHIDEI.

GRAPHIS, Ach.

G. innata, *C. Knight* (sp. nov.).

Hab.: Mount Perry.

G. glaucoderma, *Nyl.*

Hab.: Mount Mistake.

GLYPHIS, Ach.

G. colliculosa, *C. Knight* (sp. nov.). Thallus pallide olivaceo-ochraceus cartilagineus crassus colliculosus. Apothecia intricato-ramosa vel confluentia atra in stromatibus subrotundatis vel deformibus convexis cinereo-pruinosis insidentia hymenia e toro atro crasso, paraphysibus adglutinalis obscuris grumosis apice fuscis. Sporæ oblongæ utrinque rotundato 3-septatæ dilute fuscescentes emortuæ collapsæ fuscae, long. 0·13 mm., crass. 0·005 mm.

In *G. confluens*, its near ally, the spores are three times longer and have from 10 to 12 septa.—*C. Knight*.

Hab.: On bark of scrub trees.

CHIODECTON, Ach.

C. ochraceo-fuscescens, *C. Knight* (sp. nov.). Thallus ochraceo-fuscescens subpulverulentus (intus albus) continuus, structuræ verrucosideus, granulis gonimis viridis in nodulis. Apothecia in verrucis in hæmisphericis (diam. circiter 1 mm.) sordide fuscescentibus passim albis crebris (12 ad 15 in singulis verrucis); hymenia

e toro communi atro crosso (infra ad matricem extendente) enata et latero excipulo proprio tenue sejuncta. Sporæ fusiformes rectæ 3-septatæ longit. '04 mm., crassit. '003 mm.

Hab.: On bark, Fassifern scrubs.

C. stromaticum, *C. Knight*, Lich. of N.S.W., Trans. Linn. Soc. Lond.

Hab.: On bark of trees, Indooroopilly.

C. hypoleucum, *C. Knight* (sp. nov.). Thallus pallide ochraceo-cinerascens continuus lævis, linea fusca limitatus intus albus, gonidia vera. Apothecia non confluentia, in verrucis convexis rotundato-deformibus (diam. circiter 1.2 mm.) pallidis crebris intus albis, excipulo proprio tenue obscuro (toro communi atro nullo) hymenia hyalina, paraphysibus laxè ramosis. Sporæ fusiformes 3-septatæ dilute fuscescentes, emortuæ collapsæ fuscae longit. '03 mm., crassit. '003 mm.

Distinguished from *C. sphaerale* by the absence of the black torus, &c.—*C. Knight*.

Hab.: On bark of trees, Milora.

SERIES F. PYRENODEI.

TRIBE PYRENOCARPEI.

TRYPETHELIUM, Ach.

T. rubrum, *C. Knight* in Bailey's paper to Roy. Soc. Ql., i.

Hab.: On bark of trees, Brisbane scrubs.

T. cinnabarinum, *C. Knight* (sp. nov.). Thallus tenuis madefactus cinnabarinus levis inæqualis rimosus. Apothecia sphaerica (diam. circa 0.6 mm.) in verrucis sat convexis sparsis vel confluentis-seriatis immersa, excipulo proprio integro atro, ostiolo albo (diam. 0.17 mm.) mox in centro perforato, paraphysibus discretis subtilissimis. Sporæ ellipsoideæ demum dilute fuscescentes 4-cellulæ, cellulis lenticularibus sæpe quadratis longit. '027, crassit. '012 mm. Ad cortices arborum.

Closely allied to *T. rubrum*, *C. Knight*.

T. papillatum, *C. Knight* (sp. nov.). Thallus olivaceus continuus tenuis, linea atra tenui limitatus. Apothecia in verrucis (diam. circa 1.1.6 mm.) immersa, 1-2 in quaque verruca, verrucis hemisphericis, circum ostiolum papillatum pallidum depressis, perithecio integre nigro æqualiter tenui, paraphysibus subtilissimis. Sporæ fuscae subfusiformes vel elongato-ellipsoideæ, loculis circa 16 series transversis occupantibus, 4-5 in quavis tali serie, præter ultimos 2-3, longit. '08 mm., crassit. '025 mm. Ad cortices arborum.

Hab.: On trees, Main Range.

T. subumbilicatum, *C. Knight* (sp. nov.). Thallus ochraceo-olivaceus tenuis (nisi matrice fissa). Sporæ fuscae ellipsoideæ 6-8-loculares, loculis lenticularibus transversis simplicibus vel bilocellatis longit. '042 mm., crassit. '012 mm. *Ceteroquin similis*, *T. umbilicato*.

Hab.: On trees, Main Range.

T. planum, *C. Knight* (sp. nov.). Thallus pallido-lutescens lævis tenuis continuus (nisi matrice fissis). Apothecia immersa mox nuda subplana (diam. circa 2 mm.) perithecio integre nigro infra tenui, ostiolo minuto pallido, paraphysibus subtilissimis. Sporæ fuscae ellipsoideæ 6-loculares, loculis globosis, præter ultimos simplices bilocellatis, longit. .03 mm., crassit. .012 mm. Ad cortices arborum.

Closely allied to *Verrucaria Thwaitesii*, the perithecium of which, according to Leighton, is *entire*. This, however, does not agree with a specimen from Ceylon, collected by the late Dr. Thwaites, in which the perithecium is lateral and the hymenium arises from a thin stratum of thallus.—*C.K.*

Hab.: On trees, Enoggera. (305, Bail.)

T. subplanum, *C. Knight* (sp. nov.). Thallus pallido-lutescens lævis tenui continuus (nisi matrice fissis). Apothecia immersa, mox nuda subplana (diam. circa 2 mm.), perithecio integre nigro infra tenui ostiolo, minuto pallido, paraphysibus subtilissimis. Sporæ fuscae ellipsoideæ 6-loculares, loculis globosis, præter ultimos simplices bilocellatis, longit. .03 mm., crassit. .012 mm. Ad cortices arborum.

Closely allied to *T. Thwaitesii*, the perithecium of which, according to Leighton, is *entire*. But this does not agree with a specimen collected by the late Dr. Thwaites, in which the perithecium is *lateral* and the hymenium arises from a thin stratum of thallus.—*C.K.*

Hab.: On trees, Enoggera. (305 Bail.)

T. gregale, *C. Knight* (sp. nov.). Thallus olivaceo-fuscus lævis tenuis continuus (nisi matrice fissis). Apothecia parva solitaria vel gregatim disposita aut pauca aut compluria in verrucis deformibus nigris immersa, ostiolo minuto, perithecio integre nigro globoso, paraphysibus subtilissimis. Sporæ fuscae elongato-ellipsoideæ, loculis circiter 17 series transversis occupantibus, 4-5 in quavis tali serie, longit. .113 mm., crassit. .035 mm. Ad cortices arborum.

Hab.: On trees, Main Range.

T. pallidum, *C. Knight* (sp. nov.). Thallus e luteo albescens tenuis normaliter continuus. Apothecia in verrucis (diam. circa 2-4 mm.) convexis immersa, 1-3 in quaque verruca, demum pellucida thalli pellicula oblecta, perithecio integre nigro crasso, paraphysibus subtilissimis. Sporæ fuscae ellipsoideæ murali-divisæ, longit. .06 mm., crassit. .027 mm. Ad cortices arborum.

Hab.: On trees, Main Range.

T. scoria, *Fée*, Ess. sur les Crypt. des Ecorces Exot., 69. Thallus nullus. Apothecia in singulis verrucis plurima (10-50 vel ultra) immersa; verrucis magnis (circiter 3 mm. latis) tegula fusco-nigra subnitida tenui (crass. 0.2 mm.) vestita, mastoideo-deformibus, intus aurantiaco-fuscis demum atro-fuscis, ostiolis nonnumquam prominentibus; perithecio tenui integre nigro-fuscis, paraphysibus subtilissimis reticulatim connexis. Sporæ incolores oblongæ 4-loculares, loculis subsphæricis, longit. .023 mm., crassit. .009 mm. Ad cortices arborum.

Agrees closely with Glazion's specimen No. 6,305, from Rio Janeiro.—*C.K.*

Hab.: On trees, Main Range.

T. umbilicatum, *C. Knight* (sp. nov.). Thallus olivaceo-fuscescens tenuis continuus lævis nitidulus. Apothecia in verrucis (diam. 1-2.5 mm.) convexis immersa, 1-2 vel paulo ultra in quaque verruca, apice demum læviter denudata, umbilicatæ v. papillatæ; ostiolo pallido, perithecio integre nigro, supra maxime crasso, infra tenui, paraphysibus subtilissimis. Sporæ fuscæ ellipsoideæ 6-loculares, loculis globosis, præter ultimos simplices bilocellatis, longit. .032 mm., crassit. .013 mm. Ad cortices arborum.

Hab.: On trees, Main Range.

T. nanosporum, *C. Knight* (sp. nov.). Thallus e glauco-fuscus continuus tenuis lævis, linea atra (conjuncte cum nigra spermagoniarum puncta) limitatus. Apothecia in verrucis (diam. 1-2 mm.) convexis immersa, demum plus minus denudata 1-3 vel paulo ultra in quaque verruca, poro minuto, perithecio integre nigro infra tenui, paraphysibus subtilissimis. Sporæ fuscæ ellipsoideæ parvæ 4-6-loculares (raro biloculares) loculis globosis, præter ultimos simplices bilocellatis, longit. .015 mm., crassit. .007 mm. Ad cortices arborum.

Hab.: On trees, Main Range.

VERRUCARIA, *Pers.*

V. (Porina) Baileyi, *C. Knight* in Bailey's paper to Roy. Soc. Ql., i.

Hab. On bark of trees, Helidon.

V. volata, *Turn.*

Hab.: On bark of trees, Fassifern.

V. (Pyrenula) subvariolosa, *C. Knight* (sp. nov.).

Hab.: Mount Perry.

(ABNORMAL LICHEN.)

LEPRARIA, *Ach.*

L. flava, *Ach.*

Hab.: Everywhere; the yellowish-green growth on palings.

Order CLIII. FUNGI.

SUBORDER HYMENOMYCETES.

TRIBE AGARICINI.

AGARICUS, *Linn.*

(LEPIOTA.)

A. cepæstipes, *Sow.*

Hab.: Edge of Enoggera dam, on rubbish.

A. dolichandos, *Berk. et Br.*

Hab.: Brisbane River scrubs.

A. megalotholes, *Rev. O. Kalchb.*, Proc. Linn. Soc. N.S.W., vii.

Hab.: Endeavor River.

A. rhytipelta, *Rev. C. Kalchb.*, Proc. Linn. Soc. N.S.W., vii.

Hab.: Rockhampton.

(PLEUROTUS.)

A. Thozetii, *Berk. et Muell.*, Journ. Linn. Soc., xviii.

Hab.: Rockhampton.

(NAUCORIA.)

A. melinoides, *Bull.*

Hab.: Roadside, Toowong.

(PSATYRELLA.)

A. semiliber, *Berk. et Br.*

Hab.: On bark of scrub trees, Enoggera.

(CLITOCYBE.)

A. rheicolor, *Berk.*

Hab.: On wood, Three-mile Scrub.

(COLLYBIA.)

A. laccatinus, *Berk.*, Journ. Linn. Soc., xviii.

Hab.: On dead leaves, Moreton Bay.

A. coagulatus, *Berk. et Br.*

Hab.: Near Brisbane.

(ARMILLARIA.)

A. melleus, *Vahl.*

Hab.: Enoggera.

(TRICHOLOMA.)

A. civilis, *Fries.*

Hab.: Brisbane.

RUSSULA, Pers.

R. sanguinea, *Fries.*

Hab.: Burnett River.

MARASMIUS, Fries.

M. Muelleri, *Berk.*

Hab.: Herbert River.

M. equicrinis, *Berk. et Muell.*

Hab.: Dalrymple Creek.

M. exocarpi, *Berk.*

Hab.: Rockhampton.

LENTINUS, Fries.

L. catervarius, *Berk. et Br.*

Hab.: Three-mile Scrub.

L. exasperatus, *Berk. et Br.*

Hab.: Brisbane.

L. Kurzianus, *Currey.*

Hab.: Scrub of Johnstone River.

L. punctaticeps, *Berk. et Br.*

Hab.: Brisbane.

PANUS, Fries.

P. suborbicularis, *Berk. et Br.*

Hab.: On old bones, Brisbane.

XEROTUS, Fries.**X. albidus**, *Berk. et Br.*

Hab.: Three-mile Scrub.

X. lateritius, *Berk. et Cooke.*

Hab.: Three-mile Scrub.

TRIBE POLYPOREI.

BOLETUS, Linn.**B. hædinus**, *Berk. et Br.*

Hab.: Ironbark forests, Brisbane.

POLYPORUS, Fries.

(PLEUROPUS.)

P. lucidus, *Fr.* Var. *exquisitus*, Rev. C. Kalkb.

Hab.: Endeavor River.

P. sulfureus, *Fr.*

Hab.: On trees, Bunya Mountains.

P. dorcodideus, *Berk. et Br.*, Trans. Linn. Soc. Lond.

Hab.: Three-mile Scrub.

P. Guilfoylei, *Berk. et Br.*

Hab.: Maroochie.

P. grammocephalus, *Berk. et Br.*

Hab.: Enoggera.

P. nephridius, *Berk.*

Hab.: Taylor's Range.

(ANODERMA.)

P. ochroflavus, *Cooke.*

Hab.: Three-mile Scrub.

P. pelliculosus, *Berk.*

Hab.: Maroochie.

(PLACODERMA.)

P. applanatus, *Fries.*

Hab.: On trees in dense scrubs.

P. ochroleucus, *Berk.*

Hab.: On fences, Brisbane.

P. lineato-scaber, *Berk. et Br.*

Hab.: Daintree River.

P. testudo, *Berk.*

Hab.: Maroochie.

(INODERMA.)

P. luteo-olivaceus, *Berk. et Br.* Var. *tenuis*.

Hab.: Maroochie.

P. anebus, *Berk.*

Hab.: Maroochie.

(RESUPINARIA.)

P. hispidus, *Fries.*

Hab.: Three-mile Scrub.

P. medulla-panis, *Fries.*

Hab.: Enoggera Creek.

P. eriophorus, *Berk. et Br.*

Hab.: On dead pine, Moggill.

P. callosus, *Fries.*

Hab.: On pine wood, Brisbane.

P. conchatus, *Fries.*

Hab.: On wood, Teviot.

P. obliquus, *Fries.*

Hab.: On wood, Logan.

P. pectinatus, *Kl.*

Hab.: On trunks of trees, Samford.

DÆDALEA, Pers.**D. scalaris**, *Berk. et Br.*

Hab.: On wood, Main Range.

HEXAGONA, Pollina.**H. rigida**, *Berk.*

Hab.: On timber, Brisbane.

H. similis, *Berk.*

Hab.: On scrub timber.

MERULIUS, Haller.**M. Baileyi**, *Berk. et Br.*

Hab.: On wood, Enoggera.

M. lacrymans, *Schumacher.*

Hab.: On wood, Main Range.

TRIBE HYDNEI.

RADULUM, Fries.

Hymenium amphigenous, tubercular. Tubercles rough, irregular, generally elongated and cylindrical, obtuse, waxy or fleshy, scattered or fasciculate. A very natural genus of epixylous fungi, resupinate, extended, usually breaking through the bark.—*Cooke's British Fungi.*

R. molare, *Fries.*

Hab.: On peach-tree in a Brisbane garden.

GRANDINIA, Fries.

Hymenium amphigenous, continuous, waxy, papillose, warty, or granulose; the granules globular or hemispherical, entire, obtuse, crowded, regular, glabrous, persistent. Incrusting, spreading, soft fungi.—*Cooke's British Fungi.*

G. granulosa, *Fries.* Var. *ochracea*.

Hab.: Rockhampton,

TRIBE AURICULARINI.

THELEPHORA, Fries.

T. caryophyllea, *Pers.*

Hab.: Burnett River.

T. spongiæpes, *Berk.*

Hab.: Logan River.

STEREUM, Fries.

S. spathulatum, *Berk.*

Hab.: Near Brisbane.

S. illudens, *Berk.*

Hab.: On wood, Cleveland road.

S. simulans, *Berk. et Br.*

Hab.: Enoggera.

S. complicatum.

Hab.: Taylor's Range.

HYMENOCHÆTE, Lév.

Coriaceous, dry. Hymenium even, beset with short, stiff, colored bristles.

H. rubiginosa, *Lév.*

Hab.: Taylor's Range.

CORTICIUM, Fries.

C. bambusicola, *Berk. et Br.*

Hab.: On old Bamboo stems, Brisbane.

CYPHELLA, Fries.

Sub-membranaceous, cup-shaped, elongated behind and frequently pendulous. Hymenium distinctly inferior, completely confluent with the pileus.—*Cooke's British Fungi.*

C. villosa, *Pers.*

Hab.: On the dead stems of Castor-oil plants, Logan.

C. Schneideri, *Broome* (n.s.). (After H. Schneider.)

Hab.: On decayed wood, Nerang Creek.

TRIBE CLAVARIEI.

CLAVARIA, Linn.

C. botrytis, *Pers.*

Hab.: Taylor's Range.

C. cristata, *Holmsk.*

Hab.: Wight's Hill, near Brisbane.

C. lætissima, *Pers.*

Hab.: Lockyer Creek.

C. miltina, *Berk.*

Hab.: Near Brisbane.

C. portentosa, *Berk. et Br.*

Hab.: Near Brisbane River.

CALOCERA, Fries.**C. cornea, Fries.**

Hab.: On timber near Brisbane.

SUBORDER II. GASTEROMYCETES.

TRIBE HYPOGÆI.

HYDNANGIUM, Wallr.

Peridium fleshy or membranaceous. Sterile base none. Trama vesicular. Cells at first empty, then filled with spores. Spores echinulate.—*Cooke's British Fungi*.

[Characters not given at page 768 of this work.]

TRIBE PHALLOIDEI.

PHALLUS, Linn.**P. quadricolor, Berk. et Br.**

Hab.: In a garden at Woollongabba.

TRIBE TRICHOGASTRES.

GEASTER, Mich.**G. floriformis, Vitt.**

Hab.: Cunningham's Gap, Main Range.

LYCOPERDON, Tourne.**L. cælatum, Fries.**

Hab.: On timber, Logan River.

L. giganteum, Batsch.

Hab.: On Downs country.

TRIBE MYXOGASTRES.

TILMADOCHÉ, Fries.**T. mutabilis, Rostaf.**

Hab.: On rotten Gum-wood, Rockhampton.

ARCYRIA, Hill.**A. incarnata, Pers.**

Hab.: On wood, Enoggera.

CHONDRIODERMA.**C. difforme, Pers.**

Hab.: On grass, Three-mile Scrub.

TRIBE NIDULARIACEI.

CYATHUS, Pers.**C. pusio, Berk.**

Hab.: On wood, Brisbane and Rockhampton.

C. pezizoides, Berk.

Hab.: Rockhampton.

C. fimicola, Berk.

Hab.: Rockhampton.

SUBORDER CONIOMYCETES.

TRIBE SPHÆRONEMEL.

SPHÆROPSIS, Lév.

Perithecia distinct, carbonaceous; spores various, simple, escaping by a perforation at the apex.—*Cooke's British Fungi*.

S. Tricorynes, *Berk. et Br.*

Hab.: On *Tricoryne anceps*, in Tropical Queensland.

S. Rosarum, *C. et Ellis.*

Hab.: Logan, on bark of Roses.

CHÆTOPHOMA.

C. eutricha, *Sacc. et Berl.*

Hab.: Logan, on the leaves of *Castanospermum*.

PHYLLOSTICTA, Pers.

Perithecia few and minute, innate, pierced with a terminal pore, seated on discolored spots; nucleus gelatinous; sporidia ovoid or oblong, straight, minute, ejected in tendrils.—*Cooke's British Fungi*.

P. Cordylines, *Sacc. et Berl.*

Hab.: Tambourine Mountain, on *Cordyline terminalis*.

P. neurospilea, *Sacc. et Berl.*

Hab.: Logan, on *Vitis antarctica* leaves.

GAMOSPORA, Sacc., *Revue Mycologique*.

(From *gamos*, marriage, and *spora*, seeds.)

Perithecia almost superficial, globose, minute with scarcely any opening, membranous and clothed with divergent dark bristles. Sporules many-septate in the form of rods, usually in threes, terminating a common sporophore and persistent with it, these sporophores again ternately branched on the end of short rod-like basidia. It occupies a section by itself amongst the numerous species of *Sphærioidea scolecospora*.—*P. A. Saccardo* and *A. N. Berlese*, in *De la Revue Mycologique*.

G. eriosporoides, *Sacc. et Berl.*

Hab.: Logan, on leaves.

MELOPHIA.

M. Woodsiana, *Sacc. et Berl.* (After Rev. J. E. Tenison-Woods.)

Hab.: Teviot, on phyllodia of *Acacia harpophylla*.

ACTINOTHECIUM.

A. Scortechinii, *Sacc. et Berl.* (After Rev. B. Scortechini.)

Hab.: Logan, on leaves of *Smilax*.

TRIBE PUCCINIÆ.

PUCCINIA, Pers.

P. rumicis.

Hab.: On Dock-leaves, Three-mile Scrub.

TILLETIA, Tulasne.**T. epiphylla**, *Berk. et Br.*, Trans. Linn. Soc. Lond.

Hab. : On leaves of Maize.

TRIBE ÆCIDIACEI.

ÆCIDIUM, Pers.**Æ. nympholdearum**, *Berk. et Br.*, Trans. Linn. Soc. Lond.Hab. : On leaves of *Limnanthemum indicum*, near Brisbane.**RÆSTELIA**, Reb.

Peridium elongated, at length opening by lateral fissures or a terminal lacerated mouth. Spermogones on the opposite surface, on the same or on different leaves.—*Cooke's* British Fungi.

R. polita, *Berk.*, Trans. Linn. Soc. Lond.Hab. : On *Jacksonia scoparia*, near Brisbane.**GRAPHIOLA**, Poit.

Peridium sessile, ovate, double, exterior compact, coriaceous; interior membranaceous, incised, longer than the exterior, giving rise to fascicles of erect, long, simple threads; spores copious, minute, globose.—*Cooke's* British Fungi.

P. phœnices, *Poit.*

Hab. : On Palm-leaves, Brisbane.

SUBORDER HYPHOMYCETES.

THOZETIA, *Berk. et Muell.***T. nivea**, *Berk. et Muell.*

Hab. : Rockhampton.

TRIBE STILBACEI.

SPHÆROSTILBE.**S. cinnabarina**, *Tul.*

Hab. : On bark, Enoggera.

S. dubia, *Berk.*Hab. : On *Ægiceras*, Rockhampton.

TRIBE DEMALIEI.

CERCOSPORA.**C. solanacea**, *Sacc. et Berl.*Hab. : Logan, on leaves of *Solanum verbascifolium*.**HELMINTHOSPORIUM**, Link.**H. pucciniodes**, *Sacc. et Berl.*Hab. : Logan, on dead leaves of *Tristania laurina*.**ACTINOMMA**.**A. Gastonis**, *Sacc.*Hab. : Mount Moon, on phyllodia of *Acacia*.

TRIBE MUCEDINES.

BISPORA, Corda.

Flocci tomiparous, moniliform, composed of didymous spores.—*Cooke's British Fungi*.

[This generic description was not given at page 777.]

SUBORDER ASCOMYCETES.

TRIBE ELVELLACEI.

PEZIZA, Dill.

P. Thozetii, Berk., Journ. Linn. Soc. Lond., xviii.

Hab.: Rockhampton.

P. aluticolor, Berk.

Hab.: On wood, Main Range.

ASCOBOLUS, Pers.

A. Baileyi, Berk. et Br., Trans. Linn. Soc. Lond., xviii.

Hab.: On cowdung, Enoggera Creek.

STICTIS, Pers.

Receptacle obsolete; hymenium even, determinate, orbicular and elliptic, immersed in the matrix, at first veiled.—*Cooke's British Fungi*.

S. (Eustictis) radiata, Pers.

Hab.: On wood, Logan.

TRIBE PHACIDIACEI.

LEMBOSIA.

L. graphioides, Sacc. et Berl.

Hab.: Logan, on leaves of *Olea paniculata*.

HYSTEROGRAPHIUM.

H. hiascens, Rehm. (*H. macrum*, S. et B.)

RHYTHIDYSTERIUM.

R. Scortechinii, Sacc. et Berl.

Hab.: Teviot, on bark of trees.

TRYBLIDIELLA.

T. rufula, Spr.

Hab.: Teviot, on bark of trees.

TRIBE SPHÆRIACEI.

GLÆOSPORIUM, Mont.

G. cucurbitarum, Berk. et Br.

The one destructive to melons, &c., mentioned at page 779 of this work.

G. intermedium, Sacc.

Hab.: Tambourine Mountain, on leaves of *Hoya australis*.

G. Denisonii, Sacc. et Berl.

Hab.: South Queensland, on leaves of *Macrozamia Denisonii*.

PESTALOZZIA, De Not.

Spores septate, seated on a long peduncle, crested above.—*Cooke's British Fungi*.

P. funerea, *Desm.*

Hab.: Teviot, on Myrtles.

P. versicolor, *Speg.*

Hab.: Logan, on leaves of *Cupania anacardioides*.

HYPOCREA, Fries.**H. discoidea**, *Berk. et Br.*

Hab.: On a Japanese plant, Bowen Park.

MELOGRAMMA, Tul.

Stroma subglobose, depressed, cellular; perithecia immersed, adnate; sporidia linear, lanceolate, or ovate, pleurilocular or simple.—*Cooke's British Fungi*.

[This generic description was left out at page 781.]

HYPOMYCES, Tul.

Parasitic on fungi; mycelium byssoid; perithecia small, globose, papillate; asci 8-spored (rarely 2 or 4), without paraphyses; sporidia uniseriate, lanceolate or elliptic, rarely obtuse, uniseptate, ejected in tendrils.—*Cooke's British Fungi*.

H. chrysospermus, *Tul.*

Hab.: On a *Polyporus*, near Brisbane.

This is the ascigerous or perfect condition of which *Sepedonium chrysospermum* is the conidia.—*Cooke's British Fungi*.

HYPOXYLON, Fries.**H. flavo-fuscum**, *Berk. et Br.*

Hab.: On the stump of blady grass, Humpybong.

H. serpens, *Fries.*

Hab.: On wood near Brisbane.

H. concentricum, *Grev.* Var. *minius*, *Berk. et Br.*

Hab.: On wood, Enoggera.

DOTHIDEA, Fries.

Perithecia none. Nucleus contained in globose cavities immersed in the stroma, with a decided neck and papillæform ostium. Sporidia simple or septate.—*Cooke's British Fungi*.

D. nitidula, *Berk. et Br.***SPHERIA**, Haller.**S. (Depazea) Litseæ**, *Berk. et Br.*

Hab.: On leaves of *Litsea dealbata*, South Queensland scrubs.

CAPNODIUM, Montagne.

Mycelium of black, jointed, moniliform filaments, mixed with other simple ones, enclosing elongate sometimes branched perithecia. Perithecia containing sometimes asci with sporidia, at other times only spores.

C. elongatum, *Berk. et Desm.*

Hab.: Found on native shrubs infested with coccus.

DALDINIA.**D. concentrica**, *Bolt.*

Hab.: On wood, Logan.

ANTHOSTOMA.**A. capnodes**, *Berk.*

Hab.: On bark, Logan.

A. microplacum, *B. et C.*

Hab.: On bark, Burleigh Head.

DIATRYPE, Fries.

Stroma determinate, verrucæforme; perithecia immersed in the stroma. Sporidia hyaline or colored.—*Cooke's British Fungi.*

D. chlorosaca, *B. et Br.*

Hab.: On bark, Tambourine Mountain.

D. stigma, *Hoffm.*

Hab.: On bark, Logan.

PHYSALOSPORA.**P. gregaria**, *Sacc.*

Hab.: On stems of the Castor-oil plant, Logan.

SCORTECHINIA, *Sacc., Revue Mycologique.*

(After Rev. B. Scortechini.)

This is a new genus separated by P. A. Saccardo and A. N. Berlese from *Trichosphæria*, *Sacc.*, and *Sphæria*, *Mont.* Perithecia almost hidden within a compact, dark-brown, widely effuse pannoso, very minute, smooth, without papilla, finally broken up, scarcely carbonaceous. Threads of the subiculos subdichotomously branched, filiform, dark, continuous, armed on all sides with little spines 2 or 3-toothed. Asci club-shaped, very delicate, long-stalked, obtuse, 8-spored without paraphyses. Sporidia in 2 series, obliquely fusiform, transparent and acute at each end.—*P. A. Saccardo* and *A. N. Berlese*, in *De la Revue Mycologique*, April, 1885.

S. acanthostroma (*Mont.*), *Sacc. et Berl.* (*Sphæria acanthostroma*, *Mont.*; *Trichosphæria acanthostroma*, *Mont.*)

Hab.: On the bark of trees, Burleigh Head.

GIBELLIA, Sacc.

(After Professor Jos. Gibelli.)

Stomata subcutaneous and bursting forth from the base, definitely depressly-pulvinate, dark, paler internally, dotted on the surface with scarcely prominent ostioles. Perithecia globose in 1 row. Asci terete, sessile, club-shaped. Spurious paraphyses with a 2-pitted apical lumine, 8-spored. Sporidia round-elliptical, unsegmented, hyaline.

Closely related to *Dothidea* and *Mazzantia*, but possesses 3 perithecia, wherefore, on account of the hyaline sporidia, it is placed amongst the *Botryosphaeria* and *Cyrtospora*.—*P. A. Saccardo* and *A. N. Berless* in *De la Revue Mycologique*, 1885.

G. dothideoides, Sacc. et Berl.

Hab.: Mount Moon, on bark.

SPHERELLA, Notaris.**S. smilacicola, Schw.**

Hab.: Logan, on leaves of *Smilax* and *Dioscorea*.

DIDYMELLA.**D. Bryoniae, Tuck.**

Hab.: Teviot, on stems of a cucurbitaceous plant.

DIDYMOSPHERIA.**D. conoidella, Sacc. et Berl.**

Hab.: Teviot, on dead stems of *Capparis sarmentosa*.

PHYLLACHORA.**P. rhytismoides, Corda.**

Hab.: Teviot, on phyllodia of *Acacia penninervis*.

P. Alpiniae, Sacc. et Berl.

Hab.: Tallebudgera, on *Alpinia caerulea*.

DOTHIDELLA.**D. apiculata, Sacc. et Berl.**

Hab.: Samford, on leaves of *Litsea dealbata*.

MICROPELTIS.**M. applanata, Mont. (M. depauperata, Sacc. et Berl.)**

Hab.: Logan, on *Eucalyptus tereticornis*.

TRIBE PERISPORIACEI.**SPHEROTHECA, Lév.**

Mycelium arachnoid; perithecia globose, containing a single globose sporangium; appendages numerous, floccose.—*Cooke's British Fungi*.

S. pannosa, Lév. Rose Blight.

The conidiophorous condition is *Oidium leucoconium*, Desmz.

H

MELIOLA, Fries.**M. corallina**, *Mont.*, Trans. Linn. Soc. Lond., ii.

Hab. : On the leaves of native shrubs, Maroochie.

M. loganiensis, *Sacc. et Berl.*, Revue Mycologique, 1885.Hab. : On leaves of *Smilax*, Logan.

SPURIOUS GENERA OF FUNGI.

These are forms of the mycelium of higher fungi.

XYLOSTROMA.**X. gigantea**.This forms broad, flat, chamois-leather-like pieces in old logs of *Eucalyptus corymbosa* (Bloodwood).**RHIZOMORPHA**, *Ach.***R. Harrimanni**.This is a shaggy-hairy form produced by species of *Xylaria*.**R. corynephora**, *Kze.* Silver-cord Fungus.

This is found clothing slender roots and twigs, giving them a silver-cord-like appearance.

Order CLIV. ALGÆ.

SUBORDER MELANOSPERMEÆ.—DICTYOTACEÆ.

PADINA, *Adan.***P. Commersoni**.This is reduced by Dr. Harvey to a form of *P. Pavonia*, Grev. Hab. : Moreton Bay.**TAONIA**, *Ag.***T. Schraderi**.

Hab. : Moreton Bay.

SUBORDER RHODOSPERMEÆ.—CRYPTONEMIACEÆ.

CRYPTONEMA, *J. Ag.***C. luxurians**.

Hab. : Moreton Bay.

SUBORDER CHLOROSPERMEÆ.—SIPHONACEÆ.

CODIUM, *Ag.***C. spongiosum**, *Harv.*

Hab. : Moreton Bay.

BRYOPSIS, *Lamx.***B. muscosa**.

Hab. : Moreton Bay.

DESCRIPTION OF PLATES.

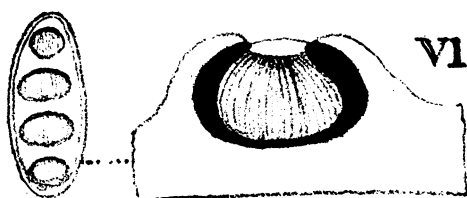
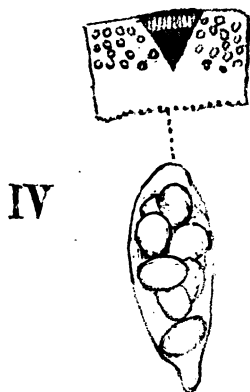
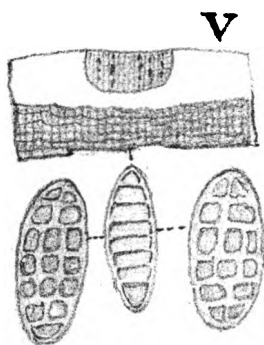
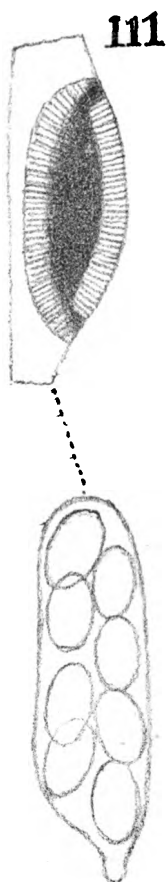
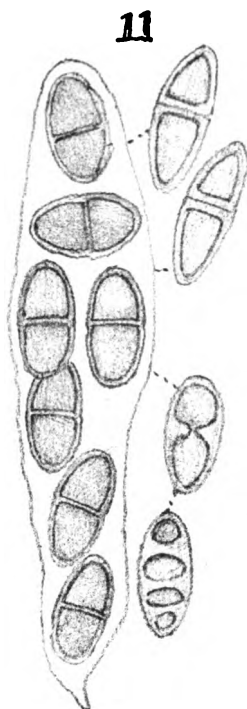
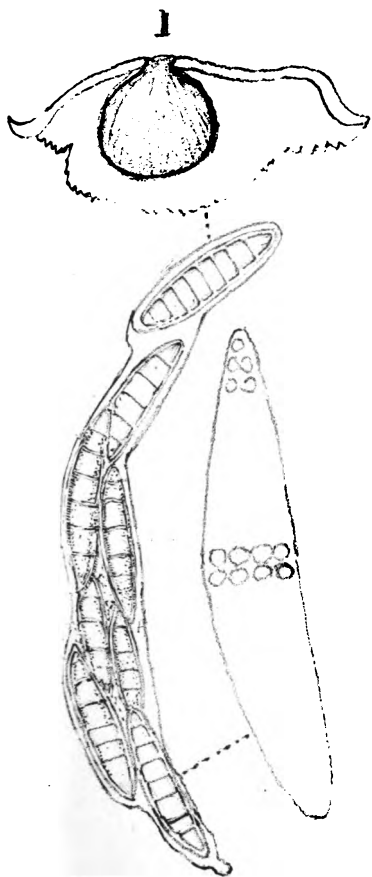
Plates I. and II.

- Fig. 1.—*PORINA ENTEROXANTHUM*, sp. n.
Section of apothecium, x 40.
Spores in ascus, x 300.
Single spore, x 900.
- Fig. 2.—*THELOTREMA HETEROSPORUM*, sp. n.
Spores in ascus, and five free spores, x 900.
- Fig. 3.—*BIATORA SCABRIDA*, sp. n.
Section of apothecium, x 40.
Spores in ascus, x 900.
- Fig. 4.—*LECANORA (ASPICILIA) MELANOMMATA*, sp. n.
Section of apothecium, x 40.
Spores in ascus, x 800.
- Fig. 5.—*THELOTREMA COMPUNCTUM*, Smith.
Section of apothecium, x 40.
Three spores, x 900.
- Fig. 6.—*TRYPETHELIUM CINNABARINUM*, sp. n.
Section of apothecium, x 40.
Spores, x 900.
- Fig. 7.—*CHIODECTON OCHRACEO-FUSCESCENS*, sp. n.
Section of verruca, x 40.
Spores in ascus, x 900.
- Fig. 8.—*CHIODECTON HYPOLEUCUM*, sp. n.
Section of several verrucæ, x 40.
Spore, x 900.
- Fig. 9.—*GLYPHIS CONFLUENS*, Mont.
Section of apothecia, x 40.
Spore, x 900.
- Fig. 10.—*CENOAGONIUM BOTRYOSUM*, sp. n.
- Fig. 11.—*LECIDEA (BOMBYLIOSPORA) INFLEXA*, sp. n.
Section of moiety of apothecium, x 40.
Spore, x 900.
- Fig. 12.—*LECIDEA (BUELLIA) SUBSTELLULATA*, sp. n.
Section of apothecium, x 40.
Spores in ascus and two paraphyses, x 900.
- Fig. 13.—Spore of *GLYPHIS COLLICULOSA*, sp. n.

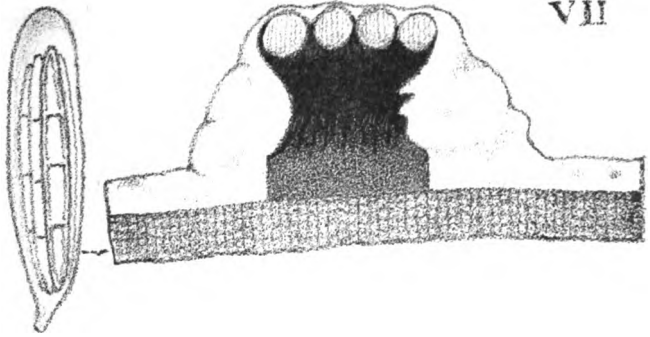
Plates III. and IV.

- Fig. 1.—*TRYPETHELIUM SUBPLANUM*.
Section of apothecia, x 18.
Spore, x 900.
- Fig. 2.—*TRYPETHELIUM PALLIDUM*.
Section of apothecium, x 18.
Spore, x 900.
- Fig. 3.—*TRYPETHELIUM SUBUMBILICATUM*.
Section of apothecium, x 18.
Spore, x 900.

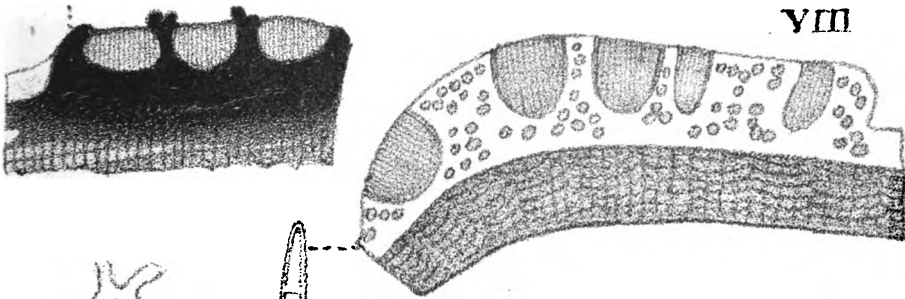
- Fig. 4.—*TRYPETHELIUM GREGALE*.
Section of apothecia, x 18.
Spore, x 900.
- Fig. 5.—*TRYPETHELIUM SCORIA*.
Section of verruca, x 18.
Spore, x 900.
- Fig. 6.—*TRYPETHELIUM PAPILLATUM*.
Section of apothecia, x 18.
Spore, x 900.
- Fig. 7.—*PORINA FARINOSA*.
Two spores (young and adult), x 900.
- Fig. 8.—*PORINA PUSTULOSA*.
Section of apothecium, x 40.
Spore, x 900.
- Fig. 9.—*PORINA MEIOSPORA*.
Two spores from the same apothecium, x 900.
- Fig. 10.—*PORINA LIMITATA*.
Section of verruca, x 40.
Spore, x 900.
- Fig. 11.—*TRYPETHELIUM NANOSPORUM*.
Section of apothecia, x 18.
Spores, x 900.
- Fig. 12.—*PORINA EXASPERATA*.
Section of verruca, x 40.
Spores, x 900.
- Fig. 13.—*TRYPETHELIUM PLANUM*.
Section of apothecium, x 18.
Spore, x 900.
- Fig. 14.—*TRYPETHELIUM UMBILICATUM*.
Section of verruca, x 18.
Spore, x 900.
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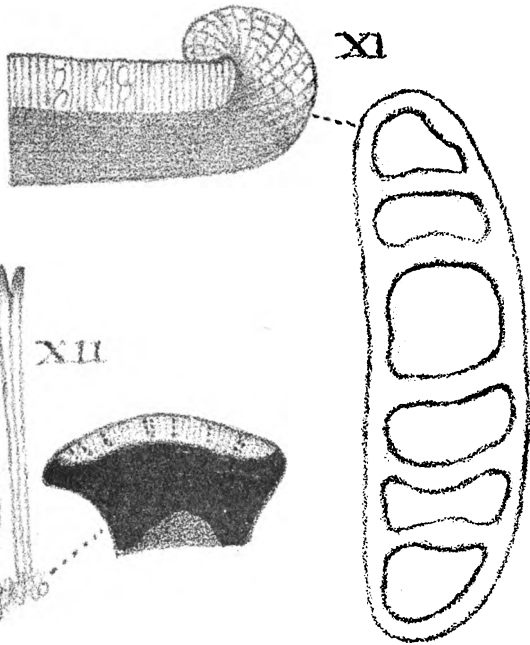
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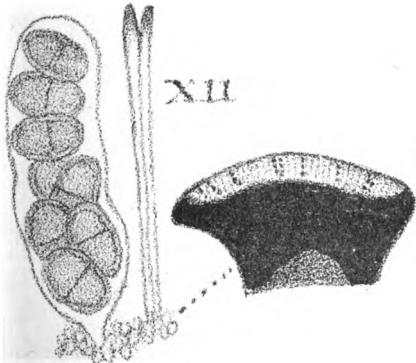
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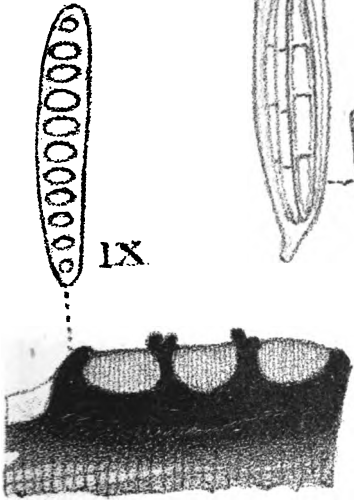
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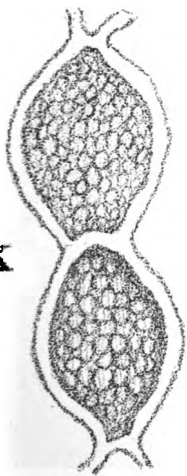
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IX

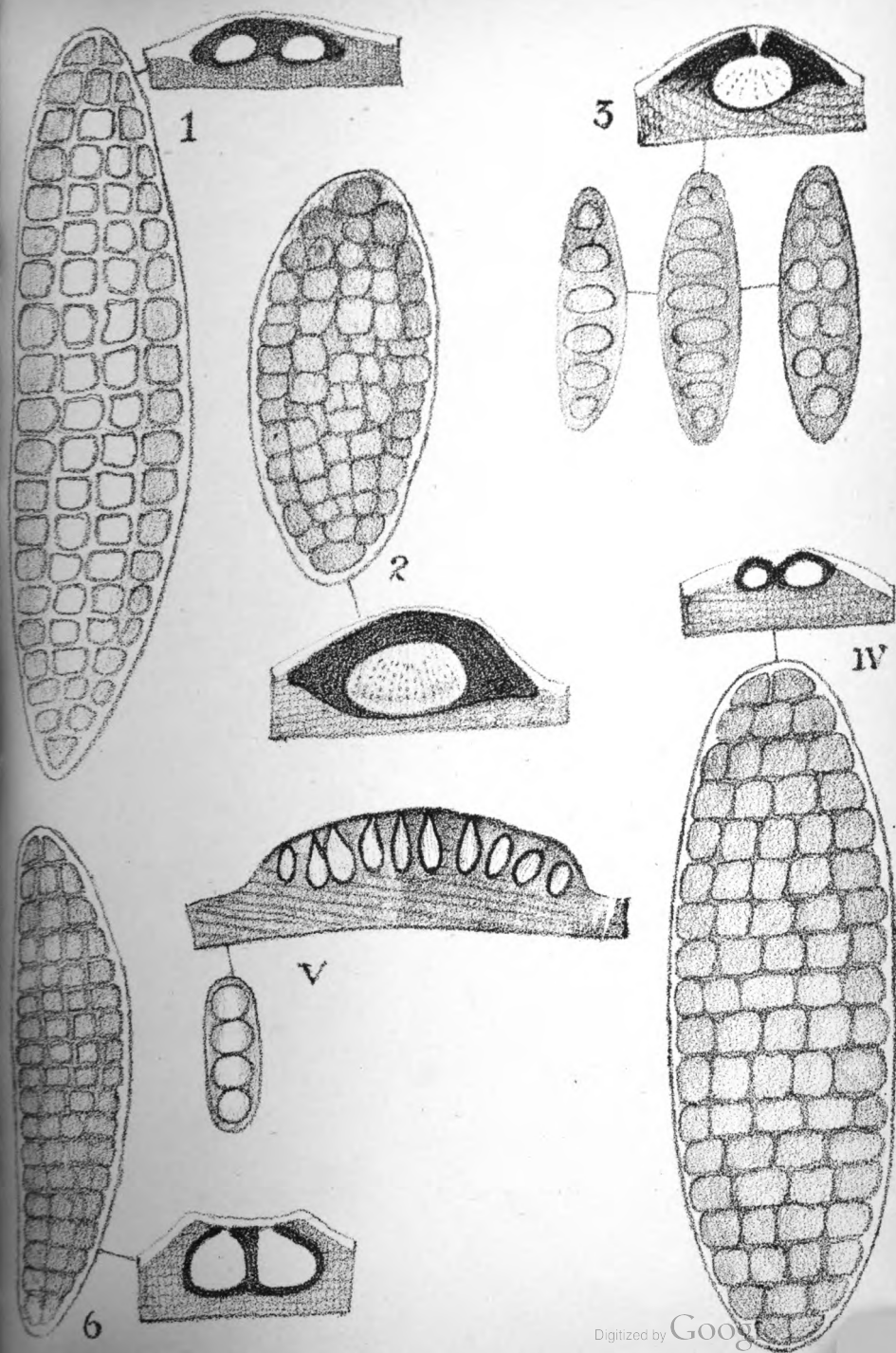


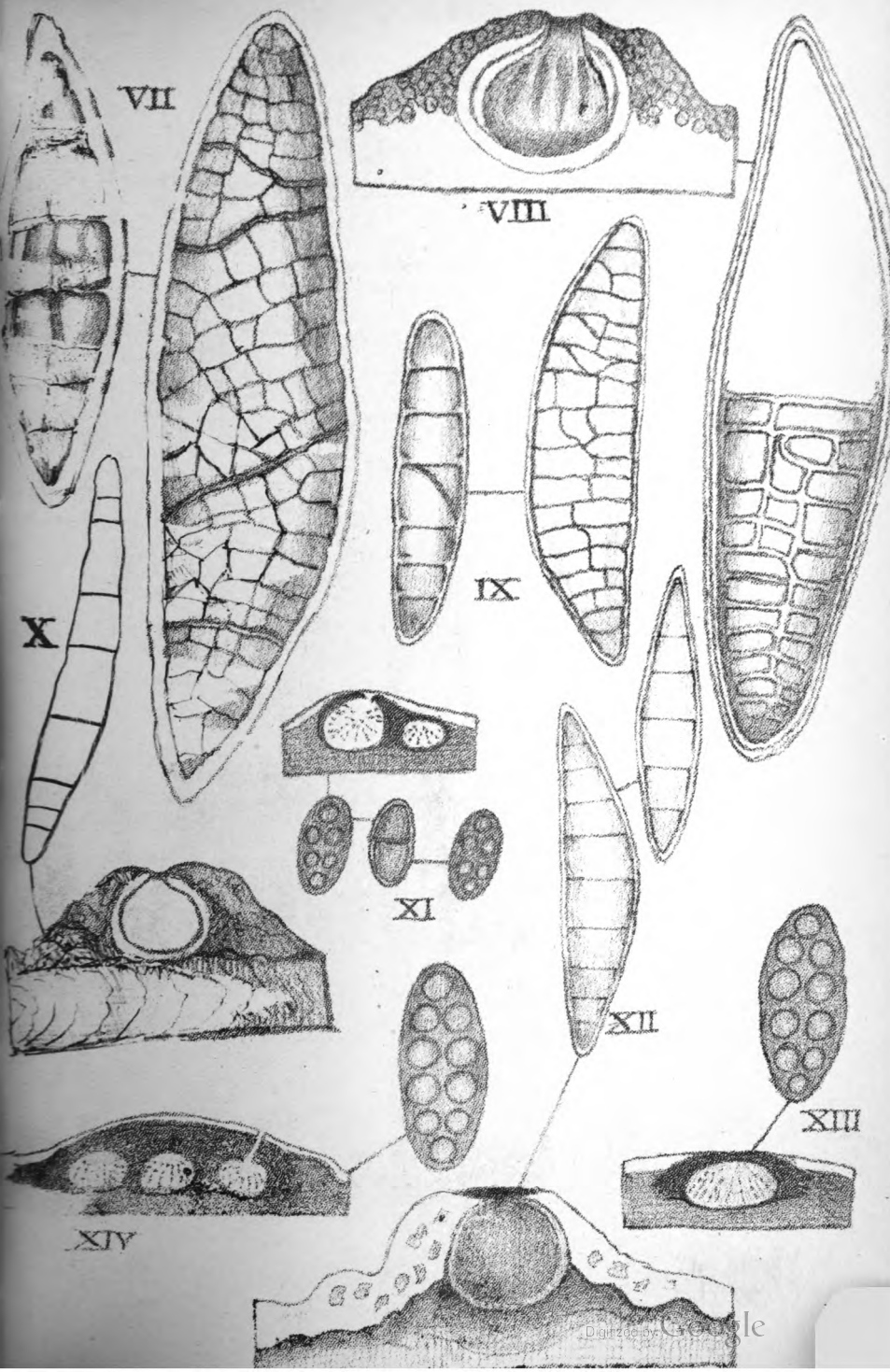
X



XIII







INDEX.

	Page.		Page.
Abutilon, <i>Gertn.</i>	8	Asplenium, <i>Linn.</i>	63
leucopetalum, <i>F. v. M.</i>	8	marinum, <i>Linn.</i>	63
<i>Acacia Cedar</i>	18	<i>var. difforme</i>	63
<i>Acomis, F. v. M.</i>	30	<i>resectum, Sm.</i>	64
<i>Rutidosis, F. v. M.</i>	30	<i>var. australiense</i>	64
<i>Acroceratium, Mitt.</i>	68	<i>Atalaya, Bl.</i>	14
<i>cymbifolioides, C. M.</i>	68	<i>variifolia, F. v. M.</i>	14
<i>politum, J. D. Hook.</i>	68	<i>Atriplex, Linn.</i>	44
<i>Acrostichum, Linn.</i>	65	<i>campanulata, Benth.</i>	44
<i>Taylori, Bail.</i>	65	<i>fissivalve, F. v. M.</i>	44
<i>Actinomma</i>	85	<i>Backhousia, H. et Harv.</i>	24
<i>Gastonis, Sacc.</i>	85	<i>Bancroftii, Bail. et F. v. M.</i>	24
<i>Actinothercium</i>	84	<i>Bæckeia, Linn.</i>	20
<i>Scortechinii, S. et B.</i>	84	<i>diosmifolia, Rudge</i>	20
<i>Æcidium, Pers.</i>	85	<i>Balls-Headleya</i>	19
<i>nymphoidearum, B. et Br.</i>	85	<i>stipellosa, F. v. M.</i>	19
<i>Agaricus, Linn.</i>	78	<i>Bauhinia, Linn.</i>	17
(<i>Lepiota.</i>)		<i>Cunninghamii, Benth.</i>	18
<i>cepestipes, Sow.</i>	78	<i>Persiehii, F. v. M.</i>	17
<i>dolichandos, B. et Br.</i>	78	<i>Berchemia</i>	13
<i>megalotholes, Kalchb.</i>	78	<i>Billardiera scandens, Sm.</i>	5
<i>rhytipelta, Kalchb.</i>	78	<i>Bispora, Corda</i>	86
(<i>Pleurotus.</i>)		<i>Blennodia, R. Br.</i>	2
<i>Thozetii, B. et Br.</i>	79	<i>canescens, R. Br.</i>	2
(<i>Naucoria.</i>)		<i>cardaminoides, F. v. M.</i>	2
<i>melinoides, Bull.</i>	79	<i>nasturtioides, Benth.</i>	2
(<i>Psatyrella.</i>)		<i>Blepharocarya, F. v. M.</i>	14
<i>semiliber, B. et Br.</i>	79	<i>involuticrigera, F. v. M.</i>	15
(<i>Clitocybe.</i>)		<i>Boletus, Linn.</i>	80
<i>rheicolor, Berk.</i>	79	<i>hædinus, B. et Br.</i>	80
(<i>Collybia.</i>)		<i>Boronia, Sm.</i>	10
<i>coagulatus, B. et Br.</i>	79	<i>anemonifolia, var. anethifolia</i>	10
<i>laccatinus, Berk.</i>	79	<i>Brachycome, Cass.</i>	26
(<i>Armillaria.</i>)		<i>melanocarpa, S. et M.</i>	26
<i>melleus, Vahl.</i>	79	<i>pachyptera, Turcz.</i>	26
(<i>Tricholoma.</i>)		<i>Brucea, Mill.</i>	11
<i>civilis, Fr.</i>	79	<i>sumatrana, Roxb.</i>	11
<i>Albizzia, Durazz.</i>	18	<i>Bryopsis, Lamx.</i>	90
<i>lophantha</i>	18	<i>muscosa</i>	90
<i>procera, Benth.</i>	18	<i>Bryum, Linn.</i>	67
<i>Toona, Bail.</i>	18	<i>angeiophyllum, C. M.</i>	67
<i>Alectoria, Ach.</i>	70	<i>coronato-affine</i>	67
<i>australiensis, C. K.</i>	70	(<i>Eccemothecium</i>) <i>dichotomum,</i>	
<i>Angianthus, Wendl.</i>	32	<i>Hedw.</i>	67
<i>brachypappus, F. v. M.</i>	32	<i>pachytheca, C. M.</i>	67
<i>pusillus, Benth.</i>	32	<i>Bulbophyllum, Thou.</i>	55
<i>Anthostoma</i>	88	<i>Bowkettæ, Bail.</i>	56
<i>capnodes, Berk.</i>	88	<i>Elisæ, F. v. M.</i>	56
<i>microplacum, B. et C.</i>	88	<i>purpurascens, Bail.</i>	55
<i>Arcyria, Hill.</i>	83	<i>Caladenia, R. Br.</i>	58
<i>incarnata, Pers.</i>	83	<i>Patersoni, R. Br.</i>	58
<i>Ascidium, Fée.</i>	72	<i>Calandrina, H. B. et K.</i>	6
<i>oculoculare, C. K.</i>	72	<i>uniflora, F. v. M.</i>	6
<i>Ascobolus, Pers.</i>	86		
<i>Baileyi, B. et Br.</i>	86		

	Page.		Page.
<i>Calocera</i> , <i>Fr.</i>	83	<i>Crotalaria</i> , <i>Linn.</i>	16
<i>cornea</i> , <i>Fr.</i>	83	<i>crispata</i> , <i>F. v. M.</i>	16
<i>Calocephalus</i> , <i>R. Br.</i>	33	<i>Cryphaea</i> , <i>Brid.</i>	67
<i>platycephalus</i> , <i>Benth.</i>	33	<i>tenella</i> , <i>Hornsch.</i>	67
<i>Calotis</i> , <i>R. Br.</i>	26	<i>Cryptonema</i> , <i>J. Ag.</i>	90
<i>cymbacantha</i> , <i>F. v. M.</i>	26	<i>luxurians</i>	90
<i>hispidula</i> , <i>F. v. M.</i>	27	<i>Cupania diphylostegia</i>	14
<i>plumulifera</i> , <i>F. v. M.</i>	26	<i>Cyathus</i> , <i>Pers.</i>	83
<i>Capnodium</i> , <i>Mont.</i>	88	<i>fimicola</i> , <i>Benth.</i>	83
<i>elongatum</i> , <i>B. et D.</i>	88	<i>pezizoides</i> , <i>Berk.</i>	83
<i>Carex</i> , <i>Linn.</i>	60	<i>pusio</i> , <i>Berk.</i>	83
<i>breviculnris</i> , <i>R. Br.</i>	60	<i>Cynoglossum</i> , <i>Linn.</i>	40
<i>Cedrela Toona</i>	18	<i>Drummondii</i> , <i>Benth.</i>	40
<i>Celosia</i> , <i>Linn.</i>	43	<i>Cyperus</i> , <i>Linn.</i>	59
<i>cristata</i> , <i>Linn.</i>	43	<i>esculentus</i> , <i>Linn.</i>	60
<i>Centipeda</i> , <i>Lour.</i>	35	<i>flavidus</i> , <i>Retz.</i>	59
<i>Cunninghamii</i> , <i>F. v. M.</i>	35	<i>lucidulus</i> , <i>Klein.</i>	60
<i>thespidioides</i> , <i>F. v. M.</i>	35	<i>tenuiflorus</i> , <i>Rottb.</i>	60
<i>Cercospora</i>	85	<i>Cyphella</i> , <i>Fries.</i>	82
<i>solanacea</i> , <i>S. et B.</i>	85	<i>Schneideri</i> , <i>Broome</i>	82
<i>Chetophoma</i>	84	<i>villosa</i> , <i>Pers.</i>	82
<i>eutricha</i> , <i>S. et B.</i>	84	<i>Dædalea</i> , <i>Pers.</i>	81
<i>Chara</i> , <i>Linn.</i>	70	<i>scalaris</i> , <i>B. et Br.</i>	81
<i>gymnopitys</i> , <i>Al. Br.</i>	70	<i>Daldinia</i>	88
<i>var. æquistriata micrantha</i>	70	<i>concentrica</i> , <i>Bolt.</i>	88
<i>Chenolea</i> , <i>Thunb.</i>	44	<i>Danthonia</i> , <i>DC.</i>	61
<i>sclerolænoidea</i> , <i>F. v. M.</i>	45	<i>bipartita</i> , <i>F. v. M.</i>	61
<i>Chenopodium</i> , <i>Linn.</i>	44	<i>pilosa</i> , <i>R. Br.</i>	61
<i>nitrariaceum</i> , <i>F. v. M.</i>	44	<i>Daphnandra</i> , <i>Benth.</i>	46
<i>Chiodecton</i> , <i>Ach.</i>	75	<i>aromatica</i> , <i>Bail.</i>	46
<i>hypoleucum</i> , <i>C. K.</i>	76	<i>Daviesia</i> , <i>Sm.</i>	16
<i>ochraceo-fuscescens</i> , <i>C. K.</i>	75	<i>acicularis</i> , <i>Sm.</i>	16
<i>stromaticum</i> , <i>C. K.</i>	76	<i>Dawsonia</i> , <i>R. Br.</i>	69
<i>Chondrioderma</i>	83	<i>superba</i> , <i>Grev.</i>	69
<i>difforme</i> , <i>Pers.</i>	83	<i>Dendrobium</i> , <i>Sw.</i>	52
<i>Chthonocephalus</i> , <i>Steetz</i>	34	<i>Adæ</i> , <i>Bail.</i>	54
<i>pseudoevax</i> , <i>Steetz</i>	34	<i>æmulum</i>	53
<i>Clavaria</i> , <i>Linn.</i>	82	<i>antennatum</i> , <i>Lindl.</i>	54
<i>botrytis</i> , <i>Pers.</i>	82	<i>Bairdianum</i> , <i>Bail.</i>	53
<i>cristata</i> , <i>Holm.</i>	82	<i>Fitzgeraldi</i> , <i>F. v. M.</i>	55
<i>lætissima</i> , <i>Pers.</i>	82	<i>hispidum</i> , <i>var. Taylora</i>	55
<i>mitina</i> , <i>Berk.</i>	82	<i>Johnsoniæ</i> , <i>F. v. M.</i>	54
<i>portentosa</i> , <i>B. et Br.</i>	82	<i>Keffordii</i> , <i>Bail.</i>	54
<i>Cleisostoma</i> , <i>Bl.</i>	57	<i>Kingianum</i> , <i>var. pallidum</i>	53
<i>Keffordii</i> , <i>Bail.</i>	57	<i>speciosum</i> , <i>var. delicatum</i>	53
<i>Armitii</i>	57	<i>nitidum</i>	52
<i>Macphersonii</i>	57	<i>striolatum</i> , <i>var. Beckleri</i>	55
<i>brevilabris</i>	57	<i>Stuartii</i> , <i>Bail.</i>	53
<i>Clerodendron inerme</i>	43	<i>uniflorus</i>	55
<i>Codium</i> , <i>Ag.</i>	90	<i>Diatrype</i> , <i>Fries</i>	88
<i>spongiosum</i> , <i>Harv.</i>	90	<i>chlorosaca</i> , <i>B. et Br.</i>	88
<i>Codonocarpus</i> , <i>A. Cunn.</i>	46	<i>stigma</i> , <i>Hoffm.</i>	88
<i>cotinifolius</i> , <i>F. v. M.</i>	46	<i>Dicranella</i> , <i>C. M.</i>	65
<i>Cœnogonium</i> , <i>Ehrenb.</i>	74	<i>tenax</i> , <i>C. M.</i>	65
<i>botryosum</i> , <i>C. K.</i>	74	<i>Dicranum</i> , <i>Hedw.</i>	66
<i>interplexum</i> , <i>Nyl.</i>	74	<i>calymperidium</i> , <i>C. M.</i>	66
<i>moniliforme</i>	74	<i>Didymella</i>	89
<i>Corticium</i> , <i>Fr.</i>	82	<i>Bryonia</i> , <i>Tuck.</i>	89
<i>bambusicola</i> , <i>B. et Br.</i>	82	<i>Didymosphæria</i>	89
<i>Cotula</i> , <i>Linn.</i>	35	<i>conoidella</i> , <i>S. et B.</i>	89
<i>reptans</i> , <i>Benth.</i>	35	<i>Diploglottis</i> , <i>Hook.</i>	14
<i>Craspedia</i> , <i>Forst.</i>	34	<i>diphylostegia</i> , <i>F. v. M.</i>	14
<i>globosa</i> , <i>Benth.</i>	34	<i>Dischidia</i> , <i>R. Br.</i>	38
<i>pleiocephala</i> , <i>F. v. M.</i>	34	<i>Rafflesiana</i> , <i>Wall.</i>	38

	Page.		Page.
Distichophyllum, <i>D. et M.</i> ...	67	Glæosporium, <i>Mont.</i> ...	86
(Mniadelphus) Baileyanus, <i>C. M.</i> ...	67	cucurbitarum, <i>B. et Br.</i> ...	86
Dodonæa, <i>Linn.</i> ...	15	Denisonii, <i>S. et B.</i> ...	86
petiolaris, <i>F. v. M.</i> ...	15	intermedium, <i>Sacc.</i> ...	86
viscosa ...	15	Glyceria, <i>R. Br.</i> ...	61
Dothidea, <i>Fr.</i> ...	87	latispicea, <i>F. v. M.</i> ...	62
nitidula, <i>B. et Br.</i> ...	87	Glycine, <i>Linn.</i> ...	17
Dothidella ...	89	sericea, <i>Benth.</i> ...	17
apiculata, <i>S. et B.</i> ...	89	tabacina ...	17
Echinosperrnum, <i>Sw.</i> ...	39	Glyphis, <i>Ach.</i> ...	75
concovum, <i>F. v. M.</i> ...	39	colliculosa, <i>C. K.</i> ...	75
Elæocarpus, <i>Linn.</i> ...	8	Gnaphalium, <i>Linn.</i> ...	27
Bancroftii, <i>F. v. M. et Bail.</i> ...	9	indutum, <i>J. D. Hook.</i> ...	27
Kirtonii, <i>F. v. M.</i> ...	8	Gnephosis, <i>Cass.</i> ...	32
Elæodendron, <i>Jacq. f.</i> ...	13	arachnoidea, <i>Turcz.</i> ...	33
australe, var. angustifolia ...	13	erica, <i>Benth.</i> ...	33
Entosthodon, <i>Schweger</i> ...	66	Goodenia, <i>Sm.</i> ...	37
ampullaceus, <i>C. M.</i> ...	66	pinnatifida, <i>Schlech.</i> ...	37
cuspidatus, <i>F. C. Kier</i> ...	66	cycloptera, <i>R. Br.</i> ...	37
Eremophila, <i>R. Br.</i> ...	42	Grandinia, <i>Fr.</i> ...	81
Goodwinii, <i>F. v. M.</i> ...	42	granulosa, <i>Fr.</i> ...	81
Mitchelli ...	42	Graphiola, <i>Poit.</i> ...	85
Sturtii, <i>R. Br.</i> ...	42	phœnicea, <i>Poit.</i> ...	85
Eriochlamys, <i>S. et M.</i> ...	30	Graphis, <i>Ach.</i> ...	75
Behrii, <i>S. et M.</i> ...	30	glauco-derma, <i>Nyl.</i> ...	75
Erysimum Blennodia, <i>F. v. M.</i> ...	2	innata, <i>C. K.</i> ...	75
Eucalyptus, <i>L'Her</i> ...	21	Grevillea, <i>R. Br.</i> ...	45
eugenioides, <i>Sieb.</i> ...	21	stenobotrya, <i>F. v. M.</i> ...	45
melioidora, <i>A. Cunn.</i> ...	21	Hakea, <i>Schrad.</i> ...	46
pallidifolia, <i>F. v. M.</i> ...	22	eriantha, <i>R. Br.</i> ...	47
populifolia ...	22	pedunculata, <i>F. v. M.</i> ...	46
polyanthema, <i>Schauer.</i> ...	22	Haloragis, <i>Forst.</i> ...	19
Stuartiana, <i>F. v. M.</i> ...	22	acanthocarpa, <i>Brongn.</i> ...	19
tetradonta, <i>F. v. M.</i> ...	22	teucroides, <i>A. Gray</i> ...	19
Eugenia, <i>Linn.</i> ...	23	Helichrysum, <i>Vaill.</i> ...	29
eucalyptoides, <i>F. v. M.</i> ...	24	Becklerii, <i>F. v. M.</i> ...	29
hemilampra, <i>F. v. M.</i> ...	23	semifortile, <i>F. v. M.</i> ...	29
Smithii ...	23	Heliotropium, <i>Linn.</i> ...	39
Eurhynchium, <i>Sch.</i> ...	68	indicum, <i>Linn.</i> ...	39
remotifolium, <i>Grev.</i> ...	68	Helipterum, <i>DC.</i> ...	28
Flindersia, <i>R. Br.</i> ...	12	Dimorpholepis, <i>Benth.</i> ...	28
maculosa, <i>Lindl.</i> ...	12	hyalospermum, <i>F. v. M.</i> ...	28
Schottiana, var. pubescens ...	12	pygmæum, <i>Benth.</i> ...	28
Strzeleckiana, <i>F. v. M.</i> ...	12	strictum, <i>Benth.</i> ...	28
var. latifolia ...	12	Helminthosporium, <i>Link</i> ...	85
Funaria, <i>Schreber</i> ...	67	puccinioides, <i>S. et B.</i> ...	85
sphaerocarpa, <i>C. M.</i> ...	67	Hexagona, <i>Pollina</i> ...	81
Fusanus, <i>R. Br.</i> ...	48	rigida, <i>Berk.</i> ...	81
acuminatus, <i>R. Br.</i> ...	48	similis, <i>Berk.</i> ...	81
Gamospora, <i>Sacc.</i> ...	84	Hibbertia, <i>Andr.</i> ...	1
eriosporoides, <i>S. et B.</i> ...	84	diffusa, <i>R. Br.</i> ...	1
Garovaglia (Euptychium) ...	68	Homalanthus populifolius ...	48
neocaledonica, <i>Schyr.</i> ...	68	Homalia, <i>Brid.</i> ...	68
Garuga, <i>Roxb.</i> ...	11	Baileyana, <i>C. M.</i> ...	68
floribunda, <i>Dcne.</i> ...	12	Hoya, <i>R. Br.</i> ...	38
Geaster, <i>Mich.</i> ...	83	australis ...	38
floriformis, <i>Vitt.</i> ...	83	Keysii, <i>Bail.</i> ...	38
Geococcus, <i>J. Drumm.</i> ...	3	Husemannia, <i>F. v. M.</i> ...	1
pusillus, <i>J. D.</i> ...	3	protensa, <i>F. v. M.</i> ...	2
Gibellia, <i>Sacc.</i> ...	89	Hydrocotyle, <i>Linn.</i> ...	25
dothideoides, <i>S. et B.</i> ...	89	pedicellosa, <i>F. v. M.</i> ...	25
Gigaspermum ...	67	Hymenochaete, <i>Lév.</i> ...	82
		rubiginosa, <i>Lév.</i> ...	82
		Hynangium, <i>Wallr.</i> ...	83

	Page.		Page.
Hypnodendron, <i>C. M.</i> ...	69	Lecidea—continued.	
curvato-comosum, <i>C. M.</i> ...	69	(Buellia) substellulata, <i>C. K.</i> ...	75
flagellare, <i>Angst.</i> ...	69	plurilocularis, <i>Nyl.</i> ...	75
pterobryoides, <i>C. M.</i> ...	69	var. pruinosa, <i>Muell. Arg.</i> ...	75
eflagellare, <i>Angstr.</i> ...	69	Lembosia ...	86
Hypnum ...	68	graphioides, <i>S. et B.</i> ...	86
(Aptychus) brachytheciella, <i>C. M.</i> ...	69	Lentinus, <i>Fr.</i> ...	79
(Aptychus) exalare, <i>C. M.</i> ...	69	catervarius, <i>B. et Br.</i> ...	79
(Cupressina) umbilicatum, <i>C. M.</i> ...	69	exasperatus, <i>B. et Br.</i> ...	79
(Drepanocladus) strictiusculus, <i>C. M.</i> ...	69	Kurzianus, <i>Currey</i> ...	79
(Heterophyllum) Keysii, <i>C. M.</i> ...	69	punctaticeps, <i>B. et Br.</i> ...	79
Hypocrea, <i>Fr.</i> ...	87	Lepidium, <i>Linn.</i> ...	3
discoidea, <i>B. et Br.</i> ...	87	monoplocoides, <i>F. v. M.</i> ...	3
Hypolæna, <i>R. Br.</i> ...	59	papillosum, <i>F. v. M.</i> ...	3
fastigiata, <i>R. Br.</i> ...	59	Lepistemon, <i>Blume</i> ...	40
Hypomyces, <i>Tul.</i> ...	87	Lucæ, <i>F. v. M.</i> ...	40
chrysospermus, <i>Tul.</i> ...	87	Lepraria, <i>Ach.</i> ...	78
Hypopterygium, <i>Brid.</i> ...	67	flava, <i>Ach.</i> ...	78
rotulatum, <i>Hedw.</i> ...	67	Leptangium, <i>Mont.</i> ...	67
Hypoxylon, <i>Fr.</i> ...	87	repens, <i>Hook.</i> ...	67
concentricum, var. minus, <i>B. et Br.</i> ...	87	Leucoloma Sieberianum ...	66
flavo-fuscum, <i>B. et Br.</i> ...	87	Leucopogon, <i>R. Br.</i> ...	37
serpens, <i>Fr.</i> ...	87	virgatus, <i>R. Br.</i> ...	37
Hysterographium ...	86	Lomaria, <i>Willd.</i> ...	64
hiascens, <i>Rehm.</i> ...	86	lanceolata, <i>Spreng.</i> ...	64
		membranacea ...	64
Indigofera, <i>Linn.</i> ...	17	Loranthus, <i>Linn.</i> ...	47
haplophylla, <i>F. v. M.</i> ...	17	sanguineus, <i>F. v. M.</i> ...	47
Isoetopsis, <i>Turcz.</i> ...	35	Lycium, <i>Linn.</i> ...	40
graminifolia, <i>Turcz.</i> ...	36	australe, <i>F. v. M.</i> ...	40
Ixiolæna, <i>Benth.</i> ...	29	Lycopodon, <i>Tourne.</i> ...	83
leptolepis, <i>Benth.</i> ...	29	cælatum, <i>Fr.</i> ...	83
tomentosa, <i>Sond. et Muell.</i> ...	29	giganteum, <i>Batsch</i> ...	83
		Lycopodium, <i>Linn.</i> ...	62
Jasminum, <i>Linn.</i> ...	38	phlegmaroides, <i>Gaudich</i> ...	62
singuliflorum, <i>Bail. et F. v. M.</i> ...	38	Macromitrium, <i>Brid.</i> ...	66
brevilobum ...	38	Scottiæ, <i>C. M.</i> ...	66
Johnstone River Hardwood ...	24	pallido-virens, <i>C. M.</i> ...	66
Juncus, <i>Linn.</i> ...	59	Macrozamia, <i>Miq.</i> ...	49
planiflorus, <i>R. Br.</i> ...	59	Denisonii, <i>C. Moore</i> ...	51
		Douglasii, <i>W. Hill et F. v. M.</i> ...	51
Karro ...	23	Hopei, <i>W. Hill</i> ...	52
Kochia, <i>Schrad.</i> ...	45	Miquelii, <i>F. v. M.</i> ...	50
brachyptera, <i>F. v. M.</i> ...	45	mountperriensis, <i>Bail.</i> ...	50
sedifolia, <i>F. v. M.</i> ...	45	Moorei, <i>F. v. M.</i> ...	51
		Paulo-Gulielmi, <i>F. v. M.</i> ...	49
Lagenophora, <i>Cass.</i> ...	25	spiralis, <i>Miq.</i> ...	49
Emphysopus, <i>Hook. f.</i> ...	25	Marasmius, <i>Fr.</i> ...	79
Lecanora, <i>Nyl.</i> ...	71	equicrinis, <i>Berk. et Muell.</i> ...	79
(Aspicilia) lævisima, <i>C. K.</i> ...	72	exocarpi, <i>Berk.</i> ...	79
subundulata, <i>C. K.</i> ...	72	Muelleri, <i>Berk.</i> ...	79
pallascens, <i>Ach.</i> ...	71	Melaleuca, <i>Linn.</i> ...	21
atra, var. immarginata, <i>C. K.</i> ...	72	acacioides, <i>F. v. M.</i> ...	21
(Hematomma) Babingtonii, <i>C. K.</i> ...	71	uncinata, <i>R. Br.</i> ...	21
(Aspicilia) melanommata, <i>C. K.</i> ...	71	Meliola, <i>Fr.</i> ...	90
subfusca, var. umbrina ...	71	corallina, <i>Mont.</i> ...	90
Lecidea, <i>Ach.</i> ...	74	loganensis, <i>Sacc. et Berl.</i> ...	90
(Bombyliospora) inflexa, <i>C. K.</i> ...	74	Melogramma, <i>Tul.</i> ...	87
(Biatorina) planella, <i>Nyl.</i> ...	74	Melophia ...	84
(Biatora) scabrida, <i>C. K.</i> ...	75	Woodsiana, <i>Sacc. et Berl.</i> ...	84
(Bilimbia) quadrilocularis, <i>C. K.</i> ...	74	Melothria, <i>Linn.</i> ...	24
(Psora) rhyoderma, <i>C. K.</i> ...	74	Muelleri, <i>Benth.</i> ...	24
(Buellia) stellulata, <i>Tayl.</i> ...	75	Meniscium, <i>Schreb.</i> ...	65
		triphylum, <i>Sw.</i> ...	65

	Page.		Page
Merulius, <i>Haller</i>	81	Phyllachora	89
Bailey, <i>B. et Br.</i>	81	Alpinia, <i>S. et B.</i>	89
lacrymans, <i>Schumacher</i>	81	rhytismoides, <i>Corda</i>	89
Metzgeria, <i>Raddi</i>	69	Phyllanthus, <i>Linn.</i>	48
furcata, <i>Nees</i>	70	lacunarius, <i>F. v. M.</i>	48
hamata, <i>Lenderb.</i>	70	Phyllosticta, <i>Pers.</i>	84
Micropeltis	89	Cordylines, <i>S. et B.</i>	84
applanata, <i>Mont.</i>	89	neurospile, <i>S. et B.</i>	84
depauparata	89	Physalospora	88
Millotia, <i>Cass.</i>	30	gregaria, <i>Sacc.</i>	88
Greevesii, <i>F. v. M.</i>	30	Physcia, <i>Nyl.</i>	71
Mollugo, <i>Linn.</i>	25	leucomela, <i>Mich.</i>	71
cerviana, <i>Ser.</i>	25	var. angustifolia	71
Myriocephalus, <i>Benth.</i>	31	limbata, var. minor	71
rhizocephalus, <i>Benth.</i>	31	stellaris, <i>Fr.</i>	71
Rudallii, <i>Benth.</i>	31	Pimelea, <i>B. et S.</i>	47
Stuartii, <i>Benth.</i>	31	penicillaris, <i>F. v. M.</i>	47
Neckera, <i>Hedw.</i>	68	simplex, <i>F. v. M.</i>	47
Baileyana, <i>C. M.</i>	68	trichostachya	47
pinnata, <i>Haller</i>	68	Pittosporum, <i>Banks</i>	4
Nitella, <i>Ag.</i>	70	revolutum	5
cristata, <i>Al. Br.</i>	70	rubiginosum	4
diffusa, <i>Al. Br.</i>	70	Wingii, <i>F. v. M.</i>	4
leptosoma	70	Podolepis, <i>Labill.</i>	35
Nitraria, <i>Linn.</i>	9	Lessoni, <i>Benth.</i>	35
Schoberi, <i>Linn.</i>	10	Polycarpaea, <i>Lour.</i>	5
Octoblepharum, <i>Hedw.</i>	66	Burtoni, <i>Bail.</i>	5
albidum, <i>Linn.</i>	66	longiflora, <i>F. v. M.</i>	5
Oidium leucoconium	89	spirostylis, <i>F. v. M.</i>	5
Olearia, <i>Moench</i>	27	Polypodium, <i>Linn.</i>	64
pimeleoides, <i>Benth.</i>	27	confluens, <i>R. Br.</i>	64
Ophiopogon, <i>Ker.</i>	58	var. lobatum	64
japonicus, <i>Ker.</i>	58	irioides, <i>Poir.</i>	64
Orthorrhynchium	68	var. lobatum	64
Oxylobium, <i>Andr.</i>	15	Phymatodes	64
ellipticum, var. angustifolium	15	rigidulum, <i>Sw.</i>	65
Padina, <i>Adan.</i>	90	var. cristatum	65
Commersoni	90	Polyporus, <i>Fr.</i>	80
Pannaria, <i>Delise</i>	71	(<i>Pleuropus.</i>)	
sorediata, <i>C. K.</i>	71	dorcadideus, <i>B. et Br.</i>	80
Panus, <i>Fr.</i>	79	grammocephalus, <i>B. et Br.</i>	80
suborbicularis, <i>B. et Br.</i>	79	Guilfoylei, <i>B. et Br.</i>	80
Parmelia, <i>Ach.</i>	71	lucidus, <i>Fr.</i>	80
caperatula, <i>Nyl.</i>	71	var. exquisitus, <i>Kalchb.</i>	80
sphaerospora, <i>C. K.</i>	71	nephridius, <i>Berk.</i>	80
Peplidium, <i>Delile</i>	41	sulfureus, <i>Fr.</i>	80
Muelleri, <i>Benth.</i>	41	(<i>Anoderma.</i>)	
Pertusaria, <i>DC.</i>	72	pelliculosus, <i>Berk.</i>	80
petrophyes, <i>C. K.</i>	72	ochroflavus, <i>Cooke</i>	80
thiospoda, <i>C. K.</i>	72	(<i>Placoderma.</i>)	
velata, <i>Turn.</i>	72	applanatus, <i>Fr.</i>	80
Pestalozzia	87	lineato-scaber, <i>B. et Br.</i>	80
funerea, <i>Desm.</i>	87	ochroleucus, <i>Berk.</i>	80
versicolor, <i>Sprg.</i>	87	testudo, <i>Berk.</i>	80
Peziza, <i>Dill.</i>	86	(<i>Inoderma.</i>)	
aluticolor, <i>Berk.</i>	86	anebus, <i>Berk.</i>	80
Thozetii, <i>Berk.</i>	86	luteo-olivaceus, <i>B. et Br.</i>	80
Phallus, <i>Linn.</i>	83	(<i>Resupinaria.</i>)	
quadricolor, <i>B. et Br.</i>	83	callosus, <i>Fr.</i>	81
Phebalium, <i>A. Juss.</i>	11	eriphorus, <i>B. et Br.</i>	81
elatus, <i>Benth.</i>	11	hispidus, <i>Fr.</i>	81
Pholidia, <i>R. Br.</i>	41	medulla-panis, <i>Fr.</i>	81
divaricata, <i>F. v. M.</i>	42	conchatus, <i>Fr.</i>	81
		obliquus, <i>Fr.</i>	81
		pectinatus, <i>Kl.</i>	81

	Page.		Page.
Pomaderris, <i>Labill.</i> ...	13	Selaginella, <i>Spring</i> ...	62
elliptica, <i>Labill.</i> ...	13	australienensis, <i>Baker</i> ...	62
Porina, <i>Ach.</i> ...	72	Bakeriana, <i>Bail.</i> ...	62
Baileyi, <i>C. K.</i> ...	78	briabanensis, <i>Bail.</i> ...	62
eminentior ...	73	concinna ...	62
endochrysa ...	73	leptostachya, <i>Bail.</i> ...	62
enteroxanthum, <i>C. K.</i> ...	72	pumilio, <i>Spring</i> ...	63
exasperata, <i>C. K.</i> ...	73	Sclerodontium, <i>Schwægr.</i> ...	66
farinosa, <i>C. K.</i> ...	74	pallidum, <i>Hook.</i> ...	66
limitata, <i>C. K.</i> ...	73	Senecio, <i>Linn.</i> ...	36
mastoidea ...	73	brachyglossus, <i>F. v. M.</i> ...	36
meiospora, <i>C. K.</i> ...	73	Cunninghamii, <i>DC.</i> ...	36
polycarpa ...	73	velleioides, <i>A. Cunn.</i> ...	36
pustulosa, <i>C. K.</i> ...	73	Sida, <i>Linn.</i> ...	7
Portulaca, <i>Linn.</i> ...	6	Spenceriana, <i>F. v. M.</i> ...	7
australis, <i>Endl.</i> ...	6	platycalyx, <i>F. v. M.</i> ...	8
digyna, <i>F. v. M.</i> ...	6	Solanum, <i>Linn.</i> ...	40
napiformis, <i>F. v. M.</i> ...	6	chenopodium, <i>F. v. M.</i> ...	40
oligosperma, <i>F. v. M.</i> ...	6	Sphærella, <i>Not.</i> ...	89
Psoralea, <i>Linn.</i> ...	16	smilacicola, <i>Schw.</i> ...	89
Archeri, <i>F. v. M.</i> ...	16	Sphæria, <i>Haller.</i> ...	87
plumosa, <i>F. v. M.</i> ...	16	(Depazea) Litseæ, <i>B. et Br.</i> ...	87
Pterobryum, <i>Hornsch.</i> ...	68	acanthostroma ...	88
(Trachyloma) planifolium, <i>Hook.</i> ...	68	Sphæropsis, <i>Lév.</i> ...	84
Pterostylis, <i>R. Br.</i> ...	57	Tricorynes, <i>B. et Br.</i> ...	84
grandiflora, <i>R. Br.</i> ...	57	Rosarium, <i>C. et Ellis</i> ...	84
Puccinia, <i>Pers.</i> ...	85	Sphærostilbe ...	84
Rumicis, <i>B. et Br.</i> ...	85	cinnabarina, <i>Tul.</i> ...	84
		dubia, <i>Berk.</i> ...	84
Radulum, <i>Fr.</i> ...	81	Sphærotheca, <i>Lév.</i> ...	89
molare, <i>Fr.</i> ...	81	pannosa, <i>Lév.</i> ...	89
Ræstelia, <i>Reb.</i> ...	85	Sphagnum, <i>Dill.</i> ...	69
polita, <i>Berk.</i> ...	85	cuspidatum ...	69
Ramalina, <i>Ach.</i> ...	70	cymbifolioides, <i>C. M.</i> ...	69
minuscula, var. alba, <i>C. K.</i> ...	70	cymbophyllum, <i>F. v. M.</i> ...	69
Rhacopilum, <i>Brid.</i> ...	67	Spotted-tree ...	12
tomentosum, <i>Brid.</i> ...	67	Stenanthemum, <i>Reissek</i> ...	13
Rhizogonium, <i>Brid.</i> ...	67	Scortechinii, <i>F. v. M.</i> ...	14
spininerve, <i>Brid.</i> ...	67	Stereum, <i>Fr.</i> ...	82
Rhytidysterium ...	86	complicatum, <i>B. et Br.</i> ...	82
Scortechinii, <i>S. et B.</i> ...	86	illudens, <i>Berk.</i> ...	82
Rhizomorpha, <i>Ach.</i> ...	90	simulans, <i>B. et Br.</i> ...	82
corynephora, <i>Kze.</i> ...	90	spathulatum, <i>Berk.</i> ...	82
Harrimannii ...	90	Sticta, <i>Ach.</i> ...	71
Ricasolia, <i>De Not.</i> ...	71	camaræ, <i>Muell. Arg.</i> ...	71
rhapsispora, <i>C. K.</i> ...	71	flavicans, <i>H. et Tayl.</i> ...	71
Rochelia, <i>Reichenb.</i> ...	39	Stictina, <i>Nyl.</i> ...	71
Maccoya, <i>F. v. M.</i> ...	40	Dozyana, <i>Mont.</i> ...	71
Rubus, <i>Linn.</i> ...	19	Stictis, <i>Pers.</i> ...	86
eglandulosus ...	19	radiata, <i>Pers.</i> ...	86
Muelleri, <i>Bail.</i> ...	19	Stringybark ...	21
rosifolius ...	19	Swainsona, <i>Salisb.</i> ...	17
Russula, <i>Pers.</i> ...	79	laxa, <i>R. Br.</i> ...	17
sanguinea, <i>Fr.</i> ...	79	Syncarpia, <i>Ten.</i> ...	23
Rutidosis acoma ...	30	Hillii, <i>Bail.</i> ...	23
		Syrhropodon, <i>Schwægr.</i> ...	66
Sarcophilus ...	56	mamillosus, <i>C. M.</i> ...	66
platystachys, <i>Bail.</i> ...	56		
Sclerolæna, <i>R. Br.</i> ...	45	Taonia, <i>Ag.</i> ...	90
paradoxa, <i>R. Br.</i> ...	45	Schraderi ...	90
Saurauja, <i>Willd.</i> ...	7	Templetonia, <i>R. Br.</i> ...	16
Andreana, <i>Oliv.</i> ...	7	egena, <i>Benth.</i> ...	16
Scortechinia, <i>Sacc.</i> ...	88	Terminalia, <i>Linn.</i> ...	20
acanthostroma, <i>Mont.</i> ...	88	bursarina, <i>F. v. M.</i> ...	20
		platyphylla, <i>F. v. M.</i> ...	20

	Page.		Page.
<i>Thelephora</i> , Fr.	82	<i>Trypethelium</i> —continued.	
<i>caryophyllea</i> , Pers.	82	<i>rubrum</i> , C. K.	76
<i>spongiaspes</i> , Berk.	82	<i>scoria</i> , Fée	77
<i>Thelotrema</i> , Ach.	72	<i>subplanum</i> , C. K.	77
<i>compunctum</i> , C. K.	72	<i>subumbilicatum</i> , C. K.	76
<i>heterosporum</i> , C. K.	72	<i>umbilicatum</i> , C. K.	78
<i>megalophthalmum</i> , Muell. Arg.	72		
<i>trypethelioides</i> , C. K.	72	<i>Usnea</i> , Dillen.	70
<i>Thlaspi</i> , Linn.	4	<i>angulata</i> , H. et T.	70
<i>cochlearinum</i> , F. v. M.	4	<i>dasypogoides</i> , Nyl.	70
<i>Thozetia</i> , Berk. et Muell.	85	<i>dasypogon</i> , Ach.	70
<i>nivea</i> , B. et M.	85	<i>Utricularia</i> , Linn.	41
<i>Thuidium</i> , Schim.	69	<i>biloba</i> , R. Br.	41
<i>protensulum</i> , C. M.	69	<i>lateriflora</i> , R. Br.	41
<i>suberectum</i> , Hp.	69		
<i>suberectum</i> , var. <i>byssoides</i>	69	<i>Vegetable Horsehair</i>	70
<i>Tilletia</i> , Tul.	85	<i>Ventilago</i> , Gertn.	13
<i>epiphylla</i> , B. et Br.	85	<i>ecorollata</i> , F. v. M.	13
<i>Tilmadoche</i> , Fr.	83	<i>Verrucaria</i> , Pers.	78
<i>mutabilis</i> , Rostof.	83	(Porina) Bailey, C. K.	78
<i>Trachymene</i> , Rudge	25	<i>valata</i> , Turn.	78
<i>glaucofolia</i> , Benth.	25	(Pyrenula) <i>subvariolosa</i> , C. K.	78
<i>pilosa</i>	25		
<i>Trematodon</i> , Rich.	65	<i>Waitzia</i> , Wendl.	27
<i>suberectus</i> , Mitt.	66	<i>corymbosa</i> , Wendl.	28
<i>Trianthema</i> , Linn.	25	<i>Wedelia</i> , Jacq.	35
<i>turgidifolia</i> , F. v. M.	25	<i>asperrima</i> , Benth.	35
<i>Trichosphaeria</i>	88	<i>Weisia</i> , Hedw.	66
<i>Tribulus</i> , Linn.	9	<i>viridula</i> , Brid.	66
<i>hystrix</i> , R. Br.	9	<i>White Beech</i>	8
<i>Trichinium</i> , R. Br.	43	<i>White Stringybark</i>	21
<i>corymbosum</i> , Gaudich.	43	<i>Wommo</i>	16
<i>parvifolium</i> , F. v. M.	43		
<i>semilanatum</i>	43	<i>Xanthorrhæa</i> , Sm.	58
<i>Trichomanes</i> , Linn.	63	<i>quadrangulata</i> , F. v. M.	58
<i>Filicula</i> , Bory.	63	<i>Xerotus</i> , Fr.	80
<i>johnstonense</i> , Bail.	63	<i>albidus</i> , B. et Br.	80
<i>Tristania</i> , R. Br.	23	<i>lateritius</i> , B. et Cooke	80
<i>macrosperma</i> , F. v. M.	23	<i>Xylostroma</i>	90
<i>Triumfetta</i> , Linn.	8	<i>giganteum</i>	90
<i>leptacantha</i>	8	<i>Yellow Box</i>	21
<i>Winneckeana</i> , F. v. M.	8		
<i>Tryblidiella</i>	86	<i>Zanthoxylum</i> , Linn.	11
<i>rufula</i> , Spr.	86	<i>brachyacanthum</i>	11
<i>Trypethelium</i> , Ach.	76	<i>veneficum</i> , Bail.	11
<i>cinnabarinum</i> , C. K.	76	<i>Zygophyllum</i> , Linn.	10
<i>gregale</i> , C. K.	77	<i>ammophilum</i> , F. v. M.	10
<i>nanosporum</i> , C. K.	78	<i>fruticulosum</i> , DC.	10
<i>pallidum</i> , C. K.	77	<i>glaucescens</i> , F. v. M.	10
<i>papillatum</i> , C. K.	76	<i>iodocarpum</i> , F. v. M.	10
<i>planum</i> , C. K.	77		

A SYNOPSIS
OF
THE QUEENSLAND FLORA;

CONTAINING BOTH THE
PHÆNOGAMOUS AND CRYPTOGAMOUS PLANTS.

BY
FREDK. MANSON BAILEY, F.L.S.,
COLONIAL BOTANIST.

SECOND SUPPLEMENT.

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PREFACE.

THE writer takes the present opportunity of thanking those correspondents who, from time to time, send him specimens of the plants of their district which appear new or strange to them, and solicits a continuance of the help thus rendered in making known the plants of the Colony. As, however, there may be other persons willing to collect and forward specimens, but who may be deterred through ignorance of what constitutes a botanical specimen, it may be again pointed out that a botanical specimen is such a portion of a plant as may enable a botanist to determine its name, &c. Thus, of a tree or shrub, a shoot, say six or nine inches long, bearing leaves, flowers, and fruit, if possible, will be sufficient. Of herbs, when small, an entire plant should be sent, collected when in flower. Of herbs of a large size, a portion of the lower (radical) leaves, and also a portion of the top, in flower or seed. All specimens should represent the typical form—not an abnormal or irregular growth, except to show such growth. After gathering, place the specimen between sheets of paper (old newspaper), and put the whole under a slight pressure; these papers should be changed for dry sheets every day for three or four days, when, if the specimens are not of a succulent nature, they will be in a fit state to forward by post, the cost of which will be 2d. per $\frac{1}{4}$ -lb. from any part of the Colony to Brisbane.

As stated previously, it was the intention of the writer to issue, at intervals of about three months, Papers containing descriptions of all additions to the Queensland Flora, but since the issue of the first of these Papers, in May, 1886, the Government Printer, from press of work, has not been able to print these Papers as they were prepared. It has therefore been deemed advisable to embody all descriptions of plants mentioned in "Occasional Papers, No. 1," with the material since accumulated, and issue a second supplement to the Synopsis of the Queensland Flora.

My thanks are due to Baron von Mueller, the Government Botanist of Victoria, for kindly furnishing for this work a full list of all the Queensland plants contained in his manuscript for the twelfth volume of the *Fragmenta Phytographiæ Australiæ*. Not being, however, able to give to such the exact locality where found, they will be noticed thus:—Hab.: Queensland.—*F. v. M.*; and for the same reason, plants given as belonging to Queensland in the third supplement to Baron von Mueller's *Census of Australian Plants* are marked thus:—Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

SECOND SUPPLEMENT
TO THE
SYNOPSIS OF THE QUEENSLAND FLORA.

Class I. DICOTYLEDONS.

SUBCLASS POLYPETALÆ.—SERIES THALAMIFLORÆ.
ALLIANCE RANALES.

Order DILLENIACEÆ.

HIBBERTIA, Andr.

SECTION HEMISTEMMA.

H. Millari, *Bail.* (After T. Barclay-Millar.) Branches slender, reddish-brown, silky-hoary or more or less clothed with white silky hairs. Leaves linear, acute, and apiculate, 2 to 3 inches long, 1 to $1\frac{1}{4}$ line broad, margins revolute, the upper surface glabrous, hoary-white on the under side, the midrib prominent but not rusty as in *H. angustifolia*. Spikes $\frac{3}{4}$ -inch long, terminal or in the upper axils bearing 1 or 2 flowers. Sepals ovate, about 4 to 5 lines long, silky-hairy outside. Petals cuneate, about 6 or 7 lines long, the end deeply emarginate. Stamens about 20, with a few filiform staminodia outside. Anthers oblong, longer than the filaments. Carpels 2, villous.

Hab.: Musgrave Electric Telegraph Station, North Queensland.—*T. Barclay-Millar.*

This species is very closely allied to *Hemistemma angustifolia*, R. Br., but of a more robust habit, with fewer and larger flowers in the spike, and wanting the prominent rusty-red midrib of the leaf of that species.

Order ANONACEÆ.

TRIBE MITREPHOREÆ.

MITREPHORA, Blume.

Trees. Leaves coriaceous, strongly ribbed, plaited in vernation. Flowers usually terminal or leaf-opposed, sometimes 1-sexual. Sepals 3, orbicular or ovate. Petals 6, 2-seriate, valvate; outer ovate, thin, veined; inner clawed, vaulted and cohering. Stamens oblong-cuneate; above anther-cells dorsal, remote. Carpels oblong; style oblong or clavate, ventrally furrowed; ovules 4 or more, 2-seriate. Ripe carpels globose or ovoid, stalked or subsessile.—*Hook.*, Flora British India i. 76.

M. Froggattii, *F. v. M.* (After one of the discoverers of the plant.) So far as known, a tree of about 20 feet; the branchlets soon glabrous. Leaves on very short petioles, as much as 8 inches long and 3 inches broad, chartaceous, elliptic-lanceolate, acuminate, nearly or quite blunt at the base, glabrous on both sides, subtle-dotted, of a rather dark-green and shining on both sides, particularly beneath; distantly costate-nerved, prominent on the under side of leaf; veins thin, reticulate. Peduncles obliterated; pedicels axillary or lateral, solitary or 2 together, about twice as long as the petals, thin-downy, minutely scaly-bracteate at the base. All flowers seen only staminate. Sepals minute, about 1 line long, nearly deltoid, membranous. Petals black-purplish, somewhat curved inwards, 2 or 3 lines long; outer ones almost orbicular and nearly sessile, the inner ones considerably longer than the outer, roundish or obcordate-rhomboid, attenuated into a stalk-like base, bicallos above the middle inside, all as well as the sepals downy on the outside, and valvate in the upper part before expansion. Head of stamens rather depressed. Anthers numerous, broadly cuneate, truncate, almost sessile; connectives dark, their flat summits forming an even surface for the head of stamens; cells pale. Torus very convex, velvety-hairy. Fruit unknown.

Hab.: Mossman River.—Collected by *Sayer* and *Froggatt*.

In the absence of pistils it remains uncertain whether this interesting plant should be placed in the genus *Mitrephora* or *Goniothalamus*; but it is not dissimilar to *M. reticulata*, differing in glabrous more distinctly petiolated leaves, in fewer and larger flowers, and in dark-coloured petals, the inner quite blunt. In some respects it reminds of the *Oropheas*, particularly *O. zeylanica*, though the stamens are so different.—*F. v. M.* in *Austr. Journ. of Pharmacy*, Jan. 1887.

Order MENISPERMACEÆ.

TRIBE PACHYGONEÆ.

PYCNARRHENA, Miers.

Sub-erect or climbing shrubs. Flowers axillary, fascicled or shortly paniced, diœcious. Male flowers: sepals 6, with 3 bracts, inner larger, orbicular; petals 6, small, lobed; stamens 9, filaments very short; anthers sub-didymous, bursting transversely. Female flowers unknown. Drupe broadly oblong, sub-gibbous, style-scar lateral; endocarp sub-reniform. Seed slightly concave ventrally, albumen none; cotyledons oblong, half-terete, very thick, slightly incurved; radicle minute, ventral.—*Hook.*, *Flora of British India* i. 105.

P. australiana, *F. v. M.*, *Vict. Nat.*, Sept. 1886. A tall climber. Leaves glabrous (as far as seen), attaining 11 inches in length with a breadth of 5 inches, thick-chartaceous, shining on both sides, hardly paler on the back, ovate or elliptical, protracted into a short and blunt apex, distinctly penninerved and finely net-veined, on short petioles. Inflorescence axillary or lateral, with minute appressed hairs; the peduncles few or many together, rather elongated, 1 to 1½ inch long, branching cymosely about 1 inch wide. Pedicels 2 lines long, or

scarcely any. Sepals almost orbicular, in 3 rows, the outer 3 considerably shorter, the other 6 nearly equal, about a line long; the petals much smaller and almost rhomboidal. Stamens very short, the filaments nearly cuneate, united at the base. Anthers of the genus. Female flowers unknown. Carpels about $\frac{1}{4}$ -inch long, glabrous, obliquely ovate-globular, on often very short stipes; exocarp somewhat fleshy, endocarp thinly cartilaginous. Seeds obliquely ovate, about 4 lines long. Cotyledons very convex outward.—*F. v. M.*, l.c.

Hab.: Endeavour River and near Trinity Bay.

The above species, Baron Mueller says, differs from *P. pleniflora* in shorter petioles, larger leaves, long peduncles, more distinctly pedicellate flowers, different proportionate size of sepals, and rather larger carpels; from *P. tumefacta* in leaves also dark-green underneath, not distinctly dilated petioles, 6 inner sepals, and perhaps also in fruit, but the disposition of the flowers is similar; from *P. lucida* and *P. manillensis*, the congener if far more removed. *P. nova-guinensis*, as yet imperfectly known, is in some respects allied to the Queensland species.—*F. v. M.*, l.c.

ALLIANCE PARIETALES.

Order CRUCIFERÆ.

TRIBE LEPIDINEÆ.

CAPSELLA, Mœnch.

(So called from its small seed-vessel.)

Sepals spreading, equal at the base. Petals short. Pod ovoid or oblong, laterally compressed or nearly terete, the valves very turgid or boat-shaped, keeled, the septum thin; style short or the stigma sessile. Seeds several, in 2 rows, not bordered, on free funicles; cotyledons incumbent or rarely accumbent. Small or weak annuals. Radical leaves rosulate, entire or lobed. Racemes slender, with small white flowers.—*Flora Austr.* i. 81.

C. Bursa-pastoris, *Mœnch*, DC. Prod. i. 177. (*Thlaspi Bursa-pastoris*, Linn.) Shepherd's Purse. Root tapering often to a great depth. Radical leaves spreading on the ground, pinnatifid, with a large ovate or triangular lobe or sometimes entire. Stem erect, from a few inches to 1 foot high or more, rather rough and often hairy, with a few oblong or lanceolate entire or toothed leaves clasping the stem with projecting auricles. Pods in a long loose raceme, usually triangular-truncate at the top, with the angles slightly rounded and narrowed at the base, sometimes notched at the top and almost obovate. Seeds 10 to 12 in each cell.—*Bentham's British Flora* i. 79.

Hab.: An introduced weed met with by Mrs. C. G. Spencer, at Albany Downs, Mitchell, and near Brisbane and Lytton.—*Bail.*, Aug. 1886.

C. Andræana, *F. v. M.*, Wing's Sou. Sc. Rec., Mar. 1885. Annual, dwarf, erect. Stem as well as branches, flower-stalks, and stalklets beset with short papillular hair. Leaves short, linear, blunt, entire, glabrous; racemes short. Flowers minute; sepals soon spreading;

petals white or yellowish, not or little longer than the sepals; filaments partly dilated at the base; anthers yellowish, cordate-roundish; stigma sessile. Fruit small, ellipsoid or globular-ovate, turgid, glabrous, not divided nor dilated at the summit, on a stalklet of usually the same length; valves subtilely 1-nerved, not keeled nor much compressed; septum lanceolar. Seeds generally 4 in each cell, ovate-roundish, compressed, brown-yellowish, margined by indurated through moisture much-expanding mucus.

Hab.: Between the Lachlan and Darling Rivers.—*H. Andra*.

In some respects allied to *C. pilulosa*, in others to *C. humistrata*.—*F. v. M., l.c.*

Order CAPPARIDÆ.

TRIBE CLEOMÆ.

CLEOME, Linn.

C. grandiflora, *F. v. M.*, Third Suppl. Muell. Cens. Austr. Pl.

Bentham, in *Flora Austr.* i. 91, who notices this plant as a form of *Polanisia*, says of it:—"Slightly pubescent. Leaflets narrow. Sepals about 4 lines long, petals nearly 1 inch long. Capsule above 4 inches long. Hab.: North-west coast and Sweer's Island."

C. pungens, *Willd.* Spider-flower. A robust annual clothed with a glandular pubescence, having a heavy scent, 2 to 5 feet high. Stipules spiny. Leaves petiolate, of from 5 to 7 lanceolate leaflets; petioles and midribs prickly. Stamens 6, long exserted from the corolla. Ovary much shorter than the gynophore. Ripe capsule about 4 inches long.

Hab.: A South American plant now naturalised. Near towns, a stray from garden culture; considered a good bee plant.

ALLIANCE CARYOPHYLLINÆ.

Order CARYOPHYLLÆ.

TRIBE ALSINÆ.

SPERGULA, Linn.

(Said to be so named because it scatters its seed.)

Sepals 5. Petals 5, entire. Stamens 10, rarely 5. Ovary 1-celled, with numerous ovules; styles 5, alternate with the sepals. Capsule 5-valved; valves entire, opposite the sepals. Seeds slightly flattened, with or without a scarious border. Slender herbs, with narrow-linear leaves in opposite clusters so as to appear whorled, and minute scarious stipules.

S. arvensis, *Linn.* Corn Spurry. A slender annual, branching at the base into several erect or ascending stems, 6 inches to 1 foot high, glabrous or slightly downy. Leaves almost subulate, 1 to 2 inches long, growing 6 or 8 together in two opposite clusters, and spreading so as to appear whorled; the scarious stipules small, sometimes

difficult to see. Flowers small, white, on long slender pedicels, turned down after flowering, in terminal forked cymes. Sepals $1\frac{1}{2}$ to 2 lines long; petals generally shorter; stamens frequently 10 or 5 in different flowers of the same plant. Seeds slightly flattened, with or without a narrow scarious border.

Hab.: This common cornfield weed of Europe has become naturalized around some of the towns of Southern Queensland.—South Brisbane, *John F. Shirley*.

TRIBE POLYCARPÆ.

DRYMARIA, Willd.

(So named from the Greek *drymos*, a forest; the plants usually being found on forest land.)

Sepals 5, herbaceous or scarious on the edge. Petals 5, 2 to 6-cleft. Stamens 5 or fewer, slightly perigynous. Style 3-cleft; capsule 3-valved. Seeds laterally attached; embryo curved round the albumen. Herbs, usually diffuse, rarely erect, with dichotomous branches. Leaves flat, broad or narrow. Stipules very small, sometimes very fugacious or wanting. Flowers pedicellate, usually small, either solitary in the forks or in little axillary or terminal cymes. Petals usually shorter than the calyx.—*Flora Austr.* i. 162.

D. diandra, *Blume*, Bijdr. tot de Fl. van Nederl. Indie 63; *Muell.* Papuan Plants 86. Leaves glabrous, rhomboid or cordate-orbicular, conspicuously stalked. Stipules fringy-cleft; cymes paniculate, with elongated glandular-powdery peduncles; flowers small; sepals only slightly scarious, their middle nerve forming a narrow pulverulent keel; petals deeply cleft into 2 segments; stamens usually 2; style almost none; stigmas 2; fruit valveless or imperfectly 2-valved. Seeds large, 1 rarely 2, closely filling the cavity of the pericarp, black, opaque, glandular-scarious.—*F. v. M.*, Papuan Plants 86.

Hab.: Baron Mueller writes me that this has at last been met with in Queensland, which he predicted when giving the above description of the form in "Papuan Plants."

ALLIANCE GUTTIFERALES.

Order GUTTIFERÆ.

TRIBE CALOPHYLLÆ.

KAYEA, Wall.

(Named after Dr. R. Kaye Greville.)

Trees. Leaves opposite, veins rather distant, arched. Flowers hermaphrodite, either large and solitary, or small and collected in terminal panicles. Sepals and petals 4 each, imbricate. Stamens numerous; filaments slender, free or connate at the base. Anthers small, subglobose, 2-celled, dehiscence vertical. Ovary 1-celled, style slender, stigma acutely 4-fid; ovules 4, erect. Fruit sub-drupaceous, fleshy, indehiscent, 1 to 4-seeded. Seeds thick, testa thin and crustaceous.—*Hooker's* Flora of British India i. 276.

K. Larnachiana, *F. v. M.*, Vict. Nat., Jan. 1887. (After James McD. Larnach.) Supposed to be a tree about 20 feet in height, the bark of the branchlets somewhat cracked. Leaves on very short petioles, elliptic-lanceolate, in rather distant pairs, chartaceous; on the specimens seen from 5 to 7 inches long and from $1\frac{1}{2}$ to 2 inches broad, nearly smooth, and scarcely shining on the upper surface, rounded at the base, the apex slightly pointed, very thinly penninerved, the faint reticulations immersed. Inflorescence in short terminal panicles or bundles without common peduncle; bracts obliterated or very fugitive; pedicels about the length of the calyx, bearing very minute deltoid bracteoles below the middle. Flower-buds globular, calyx glabrous, measuring hardly $\frac{1}{4}$ -inch, thinly coriaceous, pellucid and imbricating at the edge, the sepals finally enlarged to an inch long, the two outer ones roundish, rough, developing a brownish film, the two inner ones more oval. Petals roundish, membranous, glabrous. Stamens numerous, slightly connate at the base. Filaments very thin, the summit pointed. Anthers almost orbicular, fixed above the base; the cells surrounding the short and broad connective, dehiscent along the margin. Style glabrous, subulate-filiform, short; stigmata minute, pointed. Fruit indehiscent, rather large, globular, somewhat pointed, 1-seeded, the pericarp coriaceous, the one seed filling the cavity, basifixed, sessile. Arillus none; testa chartaceous, smooth; embryo almost globular, carnulent.

Hab.: Mossman River.—*W. Sayer*.

The descriptive notes are elaborated from specimens with young flower-buds and with over-ripe fruit.

This Australian species is evidently nearest allied to *K. racemosa*, but it has only faint nerves to the leaves, shorter petioles, and pluriseriate stamens; and perhaps the fruit of *K. racemosa*, when discovered, may show differences also.—Vict. Nat., l.c.

ALLIANCE MALVALES.

Order MALVACEÆ.

TRIBE MALVEÆ.

ABUTILON, Gærtn.

A. halophilum, *F. v. M.*, Linnæa xxv. 381.

Bentham, in Flora Austr. i. 205, places this plant as a form of *A. Fraseri*, Hook., saying it differs from the normal form in its leaves being usually orbicular, very obtuse, often truncate or retuse, and the carpels being 5 or 6 lines long, very broad and obtuse. Baron Mueller, however, from further specimens, considers it to have specific characteristics.

Hab.: Queensland Border.—*F. v. M.*

Order STERCULIACEÆ.

TARRIETIA, Blume.

T. trifoliolata, var. *peralata*, *Bail.*, Occ. Pap. on Q. F., No. 1. (The latter name suggested by the large wings of the carpels.) The Johnstone River Red Beech. A large erect tree, the stem often exceeding 5 feet in diameter. Leaves trifoliolate, the petioles

somewhat angular, mostly 2 or 3 inches long. Leaflets lanceolate, from 4 to 7 inches long and from 1 to 2 inches broad towards the middle; the indumentum more silvery than usual in this species, but with the same numerous small brown scales. Inflorescence not sent by collectors. Samaroid carpels muricate, oval or globose, $\frac{1}{2}$ to $\frac{3}{4}$ inch long by about $\frac{1}{2}$ -inch diameter, furnished with an oblong, oblique, erect wing 2 to 4 inches long by about $1\frac{1}{4}$ inch broad, clothed with the same rusty stellate scales as the underside of the leaves.

Hab.: Johnstone River.—*Dr. Thos. L. Bancroft* (carpels); *A. E. Miskin* (foliage). Mr. Miskin says the timber is not unlike Cedar in appearance, but is harder than that wood. It is used for building purposes, but soon decays if exposed to bad weather; and therefore is better suited for indoor work.

This form seems to differ in colour of wood and slightly in the indumentum, but principally in the size of the wings of carpels.

T. trifoliolata, var. angustifolia (provisional). This is another form of the foregoing species, differing, so far as can be judged in the absence of fruit and flowers, in the much smaller foliage, the leaflets narrow-lanceolate, 2 to 3 inches long and often not $\frac{1}{2}$ -inch wide.

Hab.: Endeavour River.—*W. A. Persieh*.

Order TILIACEÆ.

TRIBE GREWIEÆ.

TRIUMFETTA, Linn.

T. rhomboidea, *Jacq.*, DC. Prod. i. 507. Chinese Burr. A small shrub, glabrous or pubescent. Leaves polymorphous, ovate-rhomboid or cordate, 3 to 7-nerved, the apex acute or somewhat 3-lobed, serrate, variable in amount and quality of pubescence. Flowers about $\frac{1}{2}$ -inch diameter, yellow, in small dense cymes. Pedicels short. Flower-buds oblong, club-shaped, apiculate. Sepals oblong, apiculate. Petals oblong, ciliate at the base. Stamens 8 to 15. Capsule globose, the size of a small pea, albido-tomentose between the spines; spines hooked, glabrous or ciliated, 3 to 5-valved.—*Masters* in Fl. of Brit. Ind. and Trop. Afr.

Hab. in Queensland: Townsville and Cooktown, where it has probably been introduced by the Chinese. This pest in one or other of its many forms is found in India, Ceylon, ascending to 4,000 feet in the Himalaya, Malay Islands, China, Tropical Africa, and West Indies.

SERIES DISCIFLORÆ.—ALLIANCE GERANIALES.

Order ZYGOPHYLLÆÆ.

ZYGOPHYLLUM, Linn.

Z. prismatothecum, *F. v. M.* in Linnæa xxv. 375; Flora Austr. i. 293. A much-branched small annual. Leaves rather thick, the leaflets, in the few specimens seen, short, and confluent with the more or less dilated petiole so as to form a single 2-lobed leaf. Flowers small, 4-merous, the filaments dilated at the base and toothed or entire.

Capsules nearly sessile, oblong, 4-angular, about 4 lines long, of equal breadth at the base and the top, where the angles terminate in small erect leafy appendages. Seeds solitary in each cell.—*Flora Austr.*, l.c.

Hab.: Queensland border.—*F. v. M.*

Order GERANIACEÆ.

Tribe OXALIDEÆ.

OXALIS, Linn.

O. (Biophytum) Apodiscias, Turcz. Stems 1 to 6 inches high, slender. Leaves 1 to near 2 inches long, crowded with from 5 to 7 pairs of ciliate leaflets, the lowest smallest, orbicular-ovate, the middle one truncate at the base, the terminal with a contracted oblique base and arched midrib, the lateral nerves prominent, horizontal, wavy; petiole puberulous. Pedicels sessile; sepals exceeding the pedicels, about 2 lines long, striate, with scarious margins. Corolla purple or red, or appears so in the dry specimen: Capsule slightly exceeding the calyx. Seeds tuberculate.—*Hooker's Flora of British India* i. 437 in part, where *O. sessilis*, Hamilt., and *O. Petersii*, Klotz, are given as synonyms.

Hab.: Musgrave Electric Telegraph Station.—*T. Barclay-Millar.*

Leaves endowed with gentle movements under the influence of light, darkness, or shocks, like those of *Mimosa pudica*, &c.

Order RUTACEÆ.

Tribe BORONIEÆ.

ZIERIA, Sm.

Z. pilosa, Rudge in Trans. Linn. Soc. x. 293 t. 17; *Flora Austr.* i. 304. (So named from the plant being hairy). A small shrub, the branches terete and densely pubescent or hirsute. Leaflets 3, with a short common petiole, linear, oblong or lanceolate, obtuse, $\frac{1}{2}$ to $\frac{3}{4}$ inch or rarely 1 inch long; the margins recurved or revolute, slightly pubescent or glabrous above, more or less hirsute or tomentose underneath. Flowers small, solitary and nearly sessile, or 2 or 3 together on short pedicels. Calyx hirsute, with linear-subulate or narrow-lanceolate lobes nearly as long as the petals, and always much narrower than in most species. *Z. pauciflora*, Sm.; *Z. hirsuta*, DC.—*Flora Austr.*, l.c.

Hab.: Herberton.—*Rev. J. E. Tenison-Woods.*

ALLIANCE OLACALES.

Order OLACINEÆ.

Tribe ICACANEÆ.

PENNANTIA, Forst.

Flowers diœcious or polygamous. Calyx minute. Petals 5, hypogynous, glabrous, valvate in the bud. Stamens 5, alternating

with the petals; anthers oblong-sagittate. Ovary 1-celled; stigma nearly sessile, entire or 3-lobed; ovule solitary, suspended from the apex of the cavity. Drupe with a hard putamen or almost baccate, with a slightly coriaceous endocarp. Seed pendulous; embryo small within the apex of the fleshy albumen. Trees. Leaves thinly coriaceous, entire or coarsely toothed. Flowers in terminal corymbose panicles.—*Flora Austr.* i. 395.

P. Cunninghamii, *Miers* in *Ann. Nat. Hist.* ser. 2 ix. 491, and *Contrib.* 80 t. 12; *Flora Austr.* i. 395; *Fragm.* ix. 150. A tree of considerable size. Leaves ovate or broadly elliptical, obtuse or acuminate, 4 to 6 inches long, entire or with a few distant teeth, coriaceous and shining when old, of a lively green, narrowed into a petiole of $\frac{1}{2}$ -inch or more. Flowers numerous, in broad rather dense panicles, either terminal or in the upper axils; the males only known. Calyx scarcely prominent. Petals nearly $1\frac{1}{2}$ line long. Filaments bent in below the summit in the bud; anthers oblong, sagittate. Rudimentary ovary narrow, with 2 or 3 erect style-like lobes, and occasionally containing an imperfect pendulous ovula. Drupes or berries ovoid, about $\frac{1}{2}$ -inch long, the endocarp scarcely hardened. Seed pendulous; testa thinly membranous; embryo much shorter than the albumen.

Hab.: Mount Mistake, where it forms a large timber tree. The leaves on shoots springing from old stumps are often large and toothed at the end. Only specimens with half-ripe fruit have been collected; and as these were gathered in June it is probable the trees were in flower a month earlier. Baron Mueller, *Fragm.* ix. 150, mentions this tree attaining the height of 100 feet in N.S.W.; but Bentham, in *Flora Austr.* i. 395, calls it a tall shrub, and as such the tree is briefly mentioned at page 807 of this work.

VILLARESIA, Ruiz et Pav.

V. Moorei, *F. v. M.* (After Chas. Moore, Director of Botanic Gardens, Sydney). A tall tree, glabrous except the inflorescence. Leaves ovate-lanceolate or oblong, acuminate, 3 to 4 inches long, entire, narrowed into a short petiole, coriaceous and shining. Raceme-like panicles irregularly lateral or axillary, 2 to 4 inches long, hoary with a minute pubescence. Cymes numerous, few-flowered, on short peduncles along the rachis. Flowers almost sessile in the cymes, those seen all males. Petals 1 line long, very slightly imbricate. Drupes globular, the putamen hard, about $\frac{1}{2}$ -inch in diameter, rugose outside, the half-dissepiment projecting quite to the centre of the cavity and there slightly thickened, forming a column up the centre of which the placenta appears to pass, as if the endocarp had grown over it. Seeds quite enclosing the half-dissepiment, its transverse section being horseshoe-shaped.—*Flora Austr.* i. 396.

Hab.: A large timber tree of the Bunya Mountain; appears to belong to the above, but I have only seen old fruit-racemes and fruit. The latter resemble English damsons in shape and colour.—*See Catalogue of Queensland Woods*, No. 74c.

ALLIANCE CELASTRALES.

Order CELASTRINEÆ.

HYPHOPHYLLA, F. v. M., Vict. Nat., April 1887.

(A lover of heights; found at a high elevation.)

Sepals 5, roundish, much overlapping in bud, persistent; the 2 outer smaller than the 3 inner. Petals 5, orbicular, entire, smooth, deciduous. Stamens 5, opposite the sepals, very short, inserted towards the centre of the disk; filaments free, filiform; anthers almost reniform, the cells divergent, dehiscent by an external slit. Disk depressed, crenulated. Style extremely short; stigma orbicular, convex, with a central cavity. Ovary immersed in the disk, 3-celled; ovules many, axillary, ascendant. Fruit almost ellipsoid, somewhat pointed; pericarp coriaceous, tardily ruptured into 3 valves; septa membranous. Seeds several in each cell, almost ovate, somewhat oblique, long-persistent on elongated crisped funicles, and clasped at the base by an obconic-cupular arillus. Testa thinly crustaceous. Raphe longitudinal, prominent. Albumen carnulent. Embryo straight, somewhat shorter than the albumen. Cotyledons flat, about twice as long as the cylindric inferior radicle. A tree, with scattered coriaceous oval or lanceolate-elliptical entire leaves, with short axillary cymes of small flowers and with rather large particularly elongated fruits.—*F. v. M., l.c.*

H. Halleyana, *F. v. M.*, Vict. Nat., 1887. (After the Rev. J. J. Halley, of Melbourne.) An evergreen glabrous tree attaining the height of about 40 feet. Branchlets angular, often flexuous. Leaves flat, rather blunt, attaining 4 inches in length and $1\frac{1}{2}$ inch in breadth, on short petioles; upper surface dark-green, lower much paler; not shining; nerves faint, veins concealed. Cymes much shorter than the leaves, at times reduced to 2 or 3 flowers. Bracts and bracteoles minute, lanceolar-deltoid, the latter distant from the calyx. Petals about twice as long as the inner sepals, dull-red according to the collector's notes, hardly attaining above $\frac{1}{2}$ -inch in length. Filaments not reaching beyond the disk, persistent; anther-cells ellipsoid, deciduous. Stigma not broader than the style. Fruit 1 to $1\frac{1}{2}$ inch long. Arillus of about $\frac{1}{2}$ -inch in length, the funicle sometimes quite as long. Seeds seldom exceeding $\frac{1}{2}$ -inch in length; testa brown, slightly wrinkled, subdotted.—*F. v. M., l.c.*

Hab.: In the highest regions of Mount Bellenden-Ker, descending to about 4,000 feet.—*W. Sayer.*

This new genus is readily separable from *Euonymus* on account of the scattered leaves, the entire stigma, and the many-seeded not prominently angular fruit; from *Lophopetalum* in deeper and more unequally divided calyx, not appendiculated petals, and form of the anthers; from *Hedraianthera* in neither anthers nor stigma sessile, not hard pericarp, and the shape of the arillus; from *Leucocarpon* in the structure of the anthers, undivided stigma, not bony pericarp, and seeds much emerging from the arillus.—*F. v. M., l.c.*

Hedraianthera porphyropetala, page 59 of the first part of this work, should be placed in this order, not in *Meliaceæ*. The shrub is abundant at Pimpama and Tambourine Mountain; flowers minute, deep-red.

Order STACKHOUSIÆ.

MACGREGORIA, F. v. M., Fragm. viii. 160.

(After John Macgregor, of Victoria.)

Sepals 5, narrow-lanceolate, imbricate in the bud, free, persistent. Petals 5, almost hypogynous, free, membranous, alternate with the sepals, imbricate in the bud, oblong or obovate, spathulate, deciduous. Stamens 5, alternating with the petals. Filaments free, very short. Anthers linear-oblong, 2-celled. Pollen-grains oval, very smooth. Stigmata 5. Cocci 5, superior, obovate, indehiscent, 1-seeded. A glabrous annual with but few linear leaves and terminal racemes of flowers.—*F. v. M.*, Fragm. viii. 160.

M. racemigera, *F. v. M.*, Fragm. viii. 161. (Flowers in racemes.) A small, erect, or ascending branched herb. Leaves entire, somewhat acute, $\frac{1}{4}$ to $\frac{1}{2}$ inch long, $\frac{1}{4}$ to $\frac{1}{2}$ line broad. Pedicels very slender, $1\frac{1}{2}$ to 4 lines long. Sepals about 1 line long, with a very narrow membranous margin, joined together only just at the very base. Petals 3 to 5 lines long. Anthers $\frac{1}{2}$ -line long, light-yellow, terminated by a very small, oval, white appendage. Cocci about $\frac{1}{2}$ -line long, sprinkled with very short hooked hairs. Testa shining, smooth, and marked with very fine dots.—*F. v. M.*, *l.c.*

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

Order RHAMNEÆ.

POMADERRIS, Labill.

P. lanigera, *Sims*, Bot. Mag. t. 1823. (Alluding to the woolly clothing of plant.) An erect branching shrub, with oblong leaves $1\frac{1}{2}$ to 3 inches long, velvety-tomentose on both sides; the under surface much more dense and of a rusty colour. Panicles corymbose, calyx 2 or more lines long, very densely and softly hairy; the turbinate tube about half as long as the lobes. Petals ovate, concave, on slender claws. Capsule hairy.—*Flora Austr. i.* 416.

Hab.: Stanthorpe.—*L. A. Bernays, junr.*

ALLIANCE SAPINDALES.

Order SAPINDACEÆ.

CUPANIA, Linn.

C. Shirleyana (sp. nov.) (After J. F. Shirley, who has taken a great interest in the Field Naturalist Section of the Royal Society of Queensland.) A large shrub or small tree, the branchlets rusty-pubescent. Leaves 2 to 5 inches long; leaflets 7 to 15, the lowest the smallest, often not more than 3 lines in diameter, very unequal-sided

at the base, and overlapping the stem like stipules, increasing in size upwards, the end ones attaining the length of 2 inches, cuneate in outline, the upper part sharply toothed, the end very obtuse or truncate, glossy above, more or less pubescent beneath; primary veins very oblique and prominent, as are also the smaller reticulations. Flowers small, nearly sessile, in slender racemes about as long as the leaves. Sepals orbicular, silky, much imbricate. Petals ovate, glabrous, nearly 1 line long, the inside scale divided into 2 hairy spathulate lobes as long as the petal; disk prominent. Stamens usually about 8, but very irregular as to number; scarcely exerted. Ovary hairy. Capsule $\frac{1}{2}$ to $\frac{3}{4}$ inch long, shortly stipitate, pubescent outside and silky-hairy inside. Seeds dark-brown, somewhat pear-shaped, and more than half enveloped in a reddish arillus.

Hab.: Sankey's Scrub, off the Logan road, near Brisbane.

NEPHELIUM, Linn.

N. subdentatum, *F. v. M.*; *Benth.* in *Flora Austr.* i. 465; *F. v. M.* in *Fragm.* ix. 99. A tree of medium size, with smooth dark bark, the young shoots and inflorescence pubescent. Leaflets often few, ovate-lanceolate, obtuse or scarcely acute, irregularly sinuate-toothed or almost entire, glabrous on both sides or very nearly so, and shining above. Panicles short, little branched. Pedicels short. Calyx truncate or shortly and broadly lobed. Petals none. Filaments very short; anthers oblong, sometimes scarcely pubescent. Ovary tomentose, 2 to 3-celled; fruit truncate at the top, slightly hoary with minute tomentum, lobes usually 2, compressed-globular, united to the top, hard, indehiscent.

Hab.: Nerang Creek.—*H. Schneider.* Rockhampton.—*O'Shanessy.*

DODONÆA, Linn.

D. attenuata, *A. Cunn.* in *Field N.S.W.* 353; *Flora Austr.* i. 477; *Bot. Mag.* t. 2860. A somewhat viscid shrub. Leaves linear or narrowly linear-cuneate, obtuse, often slightly sinuate-toothed, rather thick and rigid, 1-nerved, the lateral veins inconspicuous, $1\frac{1}{2}$ to $2\frac{1}{2}$ inches long in the original form, but sometimes longer. Flowers and capsules of *D. viscosa*, under which it should probably be placed.

Hab.: Queensland southern border.—*J. Ivory.*

D. megazyga, *F. v. M.* in *Flora Austr.* i. 483; *Fragm.* ix. 86. (Pairs of leaflets large.) A tree attaining in the New England forest a height of 30 feet. The leaflets are flat, inæquilateral acute at the base; the calyces of almost equal length with the stamens. Anthers rather broad, apiculate by the extension of the little-bearded connective, sometimes exceeding in length the filament. Capsules more frequently resembling those of *D. viscosa* than those of *D. platyptera*. Wings of the capsules anteriorly broad, far higher than the short locules, extending from the top to the base of the capsules.—*F. v. M.*, *l.c.*

Hab.: Nerang Creek. A tree about 20 feet high.—*H. Schneider.*

SERIES CALYCIFLORÆ.—ALLIANCE ROSALES.

Order LEGUMINOSÆ.

SUBORDER PAPILIONACEÆ.—TRIBE GENISTEÆ.

CROTALARIA, Linn.

SERIES DIGITATÆ.

C. dissitiflora, Benth. Var. *eremæa*. Shrub about 3 feet high, clothed with a bright silvery tomentum. Leaves on long petioles, the two lateral leaflets quite minute, the middle one about 1 inch long. Flowers yellow, somewhat distant, in erect terminal raceme.

Hab.: Queensland southern border.—*J. Ivory*.

TRIBE TRIFOLIEÆ.

TRIGONELLA, Linn.

(Said to be so called from the triangular appearance of its flowers.)

Calyx-teeth nearly equal. Petals free from the staminal tube; standard obovate or oblong, narrowed at the base but scarcely clawed; wings and keel shorter, obtuse. Upper stamen free, or at first united with the others; filaments not dilated; anthers uniform. Ovary sessile or shortly stipitate, with several ovules; style filiform. Pod either linear, straight, or curved, or in species not Australian, flat and falcate, or short with a long beak, 2-valved or indehiscent. Seeds not strophiolate. Herbs often strong-scented. Leaves pinnately 3-foliate, the leaflets usually denticulate. Stipules adnate to the petiole. Flowers yellow, white, or blue, in axillary heads, umbels, or short racemes.—*Flora Austr.* ii. 186.

T. suavissima, Lindl. in Mitch. Three Exped. i. 255. (Plant very sweet, hence the name.) Sweet-scented Bird's-foot. Trefoil, Trigonel, or Fenugreek. An annual, either quite glabrous or sprinkled with a few hairs on the underside of the leaves and on the calyces, the stems prostrate or ascending, from $\frac{1}{2}$ to 2 or 3 feet in length. Leaflets broadly obovate or obcordate, rarely above $\frac{1}{2}$ -inch long, more or less denticulate, on a long slender petiole. Stipules semi-sagittate, deeply toothed. Flowers small yellow, in sessile clusters. Calyx about 2 lines long, the lobes lanceolate-subulate, rather rigid, fully as long as the tube. Standard longer than the calyx; wings and keel scarcely shorter. Upper stamen free. Pod linear, curved, almost obtuse, $\frac{1}{2}$ to $\frac{3}{4}$ inch long and about 1 line broad, opening in 2 thin reticulate valves either flat or undulate.—*Flora Austr.* ii. 187.

Hab.: *F. v. M.*, Third Supp. Cens. Austr. Pl.

Used by Sir Thos. Mitchell as a vegetable.

TRIBE GALEGEÆ.

PSORALEA, Linn.

P. pustulata, *F. v. M.* in Trans. Vic. Inst. iii. 54. (Name referring to the blister-like glands with which the plant is covered.)

A small shrub with stout, rigid, erect branches, loosely pubescent and sprinkled with large almost scale-like glands. Leaves pinnately 3-foliolate; leaflets obovate or oblong, very obtuse, 1 to 2 inches or sometimes the terminal one 3 inches long, entire, softly pubescent. Stipules broad, rigid, striate. Flowers shortly pedicellate, in rather loose axillary racemes of 2 to 4 inches, flowering almost from the base. Calyx about 3 lines long, slightly pubescent and sprinkled with prominent glands; the lobes rather broad, the 4 upper ones very short, the lowest nearly twice as long. Petals half as long again as the calyx, the standard rather broad. Pod enclosed in the somewhat inflated calyx, ovate-oblong, slightly hairy, very glandular.—*Flora Austr.* ii. 191.

Hab.: Lawn Hill, Burketown; on sandstone ranges.—*F. H. Hann.*

SUBORDER CÆSALPINIÆ.—TRIBE CASSIÆ.

CASSIA, Linn.

SUBGENUS SENNA.

SECTION ONCOLOBIUM.

C. occidentalis, *Linn.*, Spec. Pl. 539; *Benth.* in Trans. Linn. Soc. 27 p. 532. Stem firmly herbaceous or woody below, annual or of 2 or 3 years' duration, erect, often forming dense bushy masses, a few feet in height, glabrous or nearly so. Leaflets membranous, 4 to 5 pairs, ovate or elliptical-lanceolate, usually acute or acuminate, glabrous, minutely ciliolate or absolutely pubescent beneath, $1\frac{1}{2}$ to $2\frac{1}{2}$ inches long, the upper varying to 3 or 4 inches; common petiole without interpetiolar glands, but with a short obtuse gland near the base, black when dry. Stipules lanceolate or ovate-lanceolate, membranous, deciduous. Flowers in short few-flowered axillary racemes or fascicles, the peduncle and pedicels seldom exceeding 1 inch, or towards the ends of the branches, the fascicles confluent, forming an interrupted terminal raceme; the leaves reduced or bract-like. Bracts thin, linear-lanceolate or oblong, acuminate, deciduous. Sepals obtuse, glabrous or nearly so, the outer rather shorter. Petals obtuse, venose. Two anterior stamens larger, with slightly curved anthers $\frac{1}{4}$ -inch long, shortly and broadly produced at the apex. Legume 2-valved, linear compressed, slightly falcate or straight, apiculate, rather coriaceous, margined with straight sutures, $3\frac{1}{2}$ to 5 inches long, 3 or 4 lines broad; the pericarp when dry usually depressed between the seeds, which are usually but not always flattened in the same plane as the pod. Cotyledons plane, or nearly so, in the larger diameter of the seeds, enclosed between thick layers of albumen.—*Oliver's Fl. Trop. Afr.* ii. 274.

Hab.: Endeavour River near Cooktown, *Robt. McDougall*, who sent it to Brisbane as a suspected poison herb.

This plant is probably of American origin, but now common in tropical America, Asia, Africa, and seems naturalised also in Queensland. Dr. Lindley, *Flora Medica*, 261, says:—"The root greatly stimulates the lymphatic system, and is, therefore, very beneficial in obstructions and weakness of the stomach and incipient dropsy, against which disease it is used as a diuretic."

PETALOSTYLES, R. Br.

P. labicheoides, *R. Br.* Var. *cassioides*. A rather tall slender shrub of from 5 to 8 feet. Leaflets much smaller, numerous, obovate or oblong, obtuse or retuse.

Hab.: Gulf country.—*Dr. Thos. L. Bancroft.*

TRIBE AMHERSTIÆ.

AFZELIA, Sm.

(After Dr. Adam Afzelius, a Swedish botanist.)

Calyx-tube narrowly infundibuliform or cylindrical, limb 4-partite, segments entire, subequal or inner pair slightly longer, imbricate. Vexillum exceeding (sometimes many times) the calyx, clawed, lamina bilobate or subentire; lateral and anterior petals minute or squamiform or none. Perfect stamens 7, filaments elongate, very shortly coherent at the base; anthers versatile, oblong, dehiscing longitudinally; staminodia 2, subulate or filiform, one at each side of the vexillum; posterior stamen wanting. Ovary shortly stipitate, narrowed above into the slender style; ovules 8 to 10 or more. Legume oblong, elliptic, or obovate-oblong, 2-valved, several-seeded; valves thick, woody, smooth or nearly so externally, with transverse cellular or sponging septa internally separating the seeds. Seeds (in well-ascertained species) large, oblong or ellipsoidal, smooth, black, with a large, cupuliform, closely investing scarlet or yellow arillus investing the lower third. Unarmed trees. Leaves abruptly pinnate. Flowers in terminal simple or paniced racemes. Bracteoles inserted on the pedicel at the base of the calyx-tube, shorter than the bud, caducous or falling by the time of expansion.—*Oliver* in *Flora of Tropical Africa* ii. 301.

A. australis, *Bail.* Johnstone River Teak. A lofty tree, attaining a height of over 100 feet, with an erect trunk over 2 feet in diameter; bark covered by rather large lenticellæ, and exfoliating by hard thick oval or oblong patches, similar to some *Flindersias* and the Red Cedar; wood very hard and durable, of a reddish-brown. Leaves alternate, glabrous, of 2 or 3 pairs of very obtuse nearly orbicular leaflets from 3 to 5 inches long and nearly as broad, very unequal-sided at the base, on petiolules of about $\frac{1}{4}$ -inch, the divergent almost parallel veins joining far within the margin, and forming an intramarginal one, the netted veinlets numerous and somewhat prominent. Flowers pubescent. Calyx-tube ribbed, about $\frac{1}{4}$ -inch long; lobes very unequal and much imbricate, slightly longer than the tube. Petal orbicular, undulate, veined, on a claw about as long as the calyx-lobes. Stamens hairy. Ovary stipitate, flat, the edges tomentose. Pod oblong, 6 to 7 inches long and over 2 inches broad, glabrous, coriaceous, with transverse veins. Seeds dark-brown, 3 or 4, very flat, more or less covered by a mealy

substance, oblong or orbicular, about $1\frac{1}{4}$ inch diameter, the short thick funicle expanding into an oblong appressed aril.

Hab.: Johnstone River.—*Dr. Thos. L. Bancroft.*

NOTE.—It was from a log of this tree that No. 127 in the Woods Catalogue of the Colonial and Indian Exhibition was prepared in mistake for *Cynometra*.

At Baron von Mueller's request I sent him specimens of *A. australis*, and that gentleman, after comparing them with the specimens he had some time previously received from Queensland and determined to be identical with *A. bijuga*, A. Gray—and therefore mentioned this tree as occurring in Queensland, in his "Census of Australian Plants"—sends me word that both his and my specimens are the same species, and that he still considers the Australian tree *A. bijuga*; an opinion in which I cannot concur, for, besides other distinctions, the bark is very distinct in the two trees. J.S. Gamble, in his excellent work on the Indian timbers, page 141, says of *A. bijuga*, A. Gray: "Bark thin, grey, peeling off in fine papery scrolls." This could never be said of the Australian tree; but probably Baron Mueller never saw the bark of the Australian tree.

SUBORDER MIMOSÆ.—TRIBE ACACIÆÆ.

ACACIA, Willd.

SERIES PUNGENTES.

A. phlebocarpa, *F. v. M.* in Journ. Linn. Soc. iii. 119; Plate in *F. v. M.* Ic. Dec. vii. (Name referring to the veined pod.) A glabrous somewhat viscid shrub of 2 to 5 feet; branches nearly terete. Phyllodia narrow-lanceolate, rigid, tapering into a pungent point, 1 to $1\frac{1}{2}$ inch long, mostly 2 to 3 lines broad, narrowed at the base, with several parallel nerves occasionally anastomosing, 1 to 3 more prominent. Stipules small. Peduncles solitary, attaining $\frac{1}{2}$ -inch when in fruit. Flowers 5-merous; calyx turbinate, lobed, half as long as the corolla. Petals striate. Pod curved, hard, rather flat, with much-thickened margins and obliquely veined between them, depressed between the seeds. Seeds rounded, compressed, oblique; funicle with the last 2 or 3 folds much dilated into a cup-shaped apparently 2-lobed aril, enclosing the base of the seed.—*Flora Austr.* ii. 325.

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

A. tetragonophylla, *Meissner*, *Lehm.* Pl. Preiss., 1844; *F. v. M.* in Journ. Linn. Soc. iii. 121; Plate in *F. v. M.* Ic. Dec. iv. (Alluding to the somewhat 4-angled leaves.) A tall spreading shrub or small tree, glabrous; branches terete. Phyllodia usually clustered on the old nodes, linear-subulate, rigid, pungent-pointed, $\frac{1}{2}$ to 1 inch long or rarely more, with 1 or 2 nerves on each side. Stipules small, deciduous. Peduncles solitary or 2 together, nearly as long as the phyllodia, bearing a globular head of numerous 5-merous flowers. Sepals linear-spathulate, half as long as the corolla. Petals smooth, usually cohering to the middle. Pod much curved or twisted, flat with thickened margins, nearly 3 lines broad. Seeds longitudinal; funicle yellow, shortly flexuose and much thickened at the base, then completely encircling the seed in a single fold more or less dilated the whole length.—*Flora Austr.* ii. 330.

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

SERIES PLURINERVES.

A. homalophylla, *A. Cunn.*; *Hook.*, Lond. Journ. i. 365; Plate in *F. v. M.* Ic. Dec. vi. (Referring to the even leaves, not showing the nerves.) *Gidia*, *Gydya*, or *Gidgee*; on the Cloncurry called "Wong-arrah." A small tree, glabrous or the foliage minutely hoary or pale; branchlets at first slightly angular; phyllodia lanceolate-falcate, narrow-oblong or linear, obtuse, with a small oblique point, narrowed at the base, 1 to 3 inches long, 1 to 4 lines broad, thick, very finely striate with parallel nerves, which are usually only to be seen under a lens. Peduncles in pairs or clustered on a very short common peduncle, bearing dense globular heads of numerous flowers mostly 5-merous. Sepals cuneate or spatulate, free or slightly connate, more than half as long as the corolla. Petals smooth, free. Pod linear, usually glaucous, slightly curved, 2 to 3 lines broad, longitudinally veined; valves coriaceous, convex over the seeds, contracted between them. Seeds oval-oblong, longitudinal; funicle short, much folded and dilated almost from the base into a short oblique aril.—*Flora Austr.* ii. 383.

Hab.: Cunnamulla, Cloncurry.—*E. Palmer.*

Mr. E. Palmer says that on the Cloncurry the natives prefer this species of *Acacia* for making their spears, it being very tough and free in grain.

SERIES JULIFLORÆ.

A. stipuligera, *F. v. M.* in Journ. Linn. Soc. iii. 144. (Alluding to the prominent stipules.) McDowall Stuart "Scrub Wattle." Softly tomentose or pubescent; branchlets nearly terete. Phyllodia obliquely falcate, oblong or lanceolate, shortly narrowed at each end, with a small callous or hooked point, 1 to 2 inches long, 3 to 7 lines broad, coriaceous, with 2, 3, or 4 very prominent nerves and nerve-like margins and numerous anastomosing more or less longitudinal veins, the principal nerves often scabrous with resinous exudations. Stipules brown, small, but more conspicuous than in any other of the series except *A. conspersa*. Spikes nearly sessile, solitary or in pairs, 1 to nearly 2 inches long, dense and tomentose. Flowers mostly 5-merous. Calyx half as long as the corolla, thin with spatulate lobes, readily separating into distinct sepals. Petals united to the middle, tomentose. Pod long, linear, slightly twisted, not $1\frac{1}{2}$ line broad, coriaceous, with nerve-like margins.—*Flora Austr.* ii. 393.

Hab.: Queensland.—*F. v. M.*, Third Suppl. Cens. Austr. Pl.

A. umbellata, *A. Cunn.*; *Benth.* in *Hook.* Lond. Journ. i. 378. (The dense spikes of flowers resemble umbels.) A tall shrub, young shoots slightly hoary or silky, but soon glabrous; branchlets nearly terete. Phyllodia from oblong and scarcely falcate to obliquely oblong-rhomboidal or broadly falcate, obtuse, with a broadly callous or glandular tip, 2 to 4 inches long, $\frac{3}{4}$ to $1\frac{1}{2}$ inch broad, very coriaceous, with numerous parallel nerves or veins, 5 to 9 more prominent, and some of them confluent with the lower margin at the base, the others

closely packed, fine, and rarely anastomosing. Spikes sessile or nearly so, often clustered, rather dense, 1 to $1\frac{1}{2}$ inch long. Flowers mostly 5-merous, but sometimes 4-merous. Calyx pubescent, sinuate-toothed or shortly-lobed. Petals with prominent midribs. Pod falcate or nearly straight, almost terete, with convex and coriaceous valves. Seeds ovate, oblique, funicle short, dilated into a small aril of 2 or 3 folds under the seed.—*Flora Austr.* ii. 394.

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

TRIBE INGEÆ.

PITHECOLOBIUM, Mart.

P. moniliferum, *Benth.* in Hook. Lond. Journ. iii. 211; *Flora Austr.* ii. 424. (So called from its necklace-like pods.) A rather small tree with dark rugged bark and dense spreading head of glossy foliage, the young growth usually pubescent, at length glabrous. Pinnæ 1 or 2 pairs, the common petiole $\frac{1}{2}$ to 1 inch, each rhachis 1 to 4 inches long; leaflets 4 to 7 pairs, obliquely obovate or oval-oblong, obtuse, very oblique at the base, shining and reticulately penniveined above, opaque and less veined underneath, the terminal ones 1 to $1\frac{1}{2}$ or nearly 2 inches long, the other smaller. Peduncles clustered in the upper arils, forming a short irregular terminal panicle. Flowers numerous in globular umbels, the pedicels about $1\frac{1}{2}$ inch long. Calyx nearly 1 line long. Corolla about 2 lines long, minutely silky-pubescent; stamens more than twice as long, the united part nearly as long as the corolla. Pod usually falcate, 3 to 6 inches long, $\frac{3}{4}$ -inch or rather more broad, very thick and hard, indehiscent but separating into closed 1-seeded articles. Seeds transverse, oblong, flat but thick, funicle very short.—*Flora Austr.*, l.c.

Hab.: Armstrong Creek, Gulf of Carpentaria.—*Dr. Thos. L. Bancroft.*

Order SAXIFRAGEÆ.

TRIBE CUNONIEÆ.

SPIRÆANTHEMUM, A. Gray.

Flowers hermaphrodite or polygamo-dicæious, calyx-tube short, free, the limb 3 to 5-parted; lobes ovate-triangular, persistent, valvate. Petals none. Stamens 4 to 5 or twice that number, inserted at the base of the calyx, nearly hypogynous, long as the calyx; filaments filiform; anthers didymous. The hypogynous glands 8 to 10, linear, alternate, with the stamens and a little more internals. Carpels in the male flowers none, in the female flowers 4 or 5, rarely 2 or 3, free, oblong-ovoid, very much attenuated, style stigmatose at the apex; ovules 1 to 5, or numerous 2-serrate. Follicles 2 to 5, twice the length of calyx, compressed, dehiscent inwards, 1 or 2-seeded. Seeds oblong, compressed. Testa winged above or on both sides, embryo sub-cylindrical,

albuminous. Shrubs or small trees with terete branchlets. Leaves opposite or verticillate, petiolate, simple, oval or oblong, entire or serrate. Stipules deciduous. Flowers numerous, disposed in axillary panicles, small, on articulate pedicels.—*B. and H.*, Gen. Pl. i. 650.

S. Davidsonii, *F. v. M.*, Austr. Journ. of Pharm., March 1887. (After Alex. Davidson, who, with Mr. Sayer, has lately collected many rare plants on the summit of Mount Bellenden-Ker, the highest mountain in tropical Australia.) A spreading-headed tree with slender stem, about 25 feet in height, the branchlets glabrescent; leaves opposite, on rather long stalks, glabrous on both sides, prominently costate-nerved beneath; and there at the axils of the nerves foveolate; panicles terminal, erect, ample. Flowers numerous, pinkish-white; peduncles and pedicels slightly downy; segments of the calyx ovate-lanceolate, glabrous, stamen exserted, twice as many as divisions of the calyx; hypogynous scales very minute. Follicles 2 to 3, considerably longer than the calyx. Seeds with a terminal appendage.—*F. v. M.*, *l.c.*

Hab.: On the highest crest of Mount Bellenden-Ker.—*Sayer and Davidson.*

Baron Mueller also notes that this species is closely allied to *S. samoense*, but that plant, so far as known, differs in its leaves, being more rounded, copiously dentate, a closer nervature, shorter stamens and styles, as well as in its greater number of carpels. From *S. vitiense*, our plant is separated by always simply opposite leaves, terminal inflorescence, longer pedicels, larger flowers, much exserted stamens and carpels, not several times longer than the calyx. *S. Macgillivrayi*, from the New Hebrides, is as yet imperfectly known, but the leaves are described as serrate and the flowers as always tetramerous. *S. Graeffei* and *S. Katakata*, from Fiji, are also allied but not identical. The New Caledonian congeners are still more distinct.

ALLIANCE MYRTALES.

Order RHIZOPHOREÆ.

BRUGUIERA, Lam.

B. parviflora, *W. et Arn.*, Prod. i. 311. (Referring to its flowers being small.) A tropical coast swamp tree of small size, glabrous except the petals. Leaves oblong or broadly lanceolate, 2 to over 3 inches long, tapering towards the petiole, which is rather slender and about $\frac{1}{2}$ -inch long. Stipules about $1\frac{1}{2}$ inch long. Flowers small, pedicellate in a once or twice trichotomous cyme. Calyx-tube prominently ribbed, tapering towards the base; lobes 8, lanceolate, erect, rigid, and scarcely over $1\frac{1}{4}$ line long. Petals shorter than the calyx-lobes, cleft, with a bristle in the sinus and with 3 or more at the apex of each of the lobes, the incurved sides hairy where they embrace the stamens. Ovary 3-celled, ribbed. Fruit sub-cylindrical, about 1 inch long, according to Hooker's Flora of British India, but not sent with the Johnstone River specimens.

Hab.: Johnstone River.—*Dr. Thos. L. Banoroft. Mackay.—H. L. Griffith.*

Some years since, Baron Mueller, in *Fragm.* ix. 159, pointed out the probability of this Indian coast-tree being found in Australia.

Order MYRTACEÆ.

TRIBE LEPTOSPERMEÆ.

AGONIS, DC.

A. lysicephala, *F. v. M. et Bail.*, Occ. Pap. Q. Fl. No. 1, under *Melaleuca*. (Name alluding to the fruits being free in each head.) Kennedy's Heath. A dense heath-like shrub of a few feet, the upper branchlets hoary and almost thread-like. Leaves glabrous and faintly 3-nerved, linear, obtuse, about 8 or 9 lines long and 1 to $1\frac{1}{2}$ line broad, scattered except the pair close under each head of flowers. Fruiting-heads pubescent, oval or globular, from very small to 6 lines long by 4 lines diameter, usually terminal on the lower slender branchlets, with a pair of opposite leaves close under each head. Fruiting-calyces pubescent, easily separated from each other, being nearly encircled by subtending scarious bracts.

Hab.: Lloyd's Bay.—*Thos. A. Gulliver*.

MELALEUCA, Linn.

M. hakeoides, *F. v. M.*, Flora Austr. iii. 151. (Resembling a *Hakea* in foliage.) A tall shrub, the young shoots softly silky-pubescent and somewhat silvery, the older foliage glabrous. Leaves alternate, linear-subulate, terete or slightly compressed, usually sulcate, obtuse or acute, 1 to 2 inches long, the point straight. Flowers small, in dense globular or rarely ovoid terminal heads, the rhachis and calyces usually villous. Calyx-tube about $\frac{1}{2}$ -line long; lobes very small. Petals scarcely 1 line diameter. Staminal bundles not 2 lines long, the claws short, each with 3 to 7 filaments. Ovules few in each cell, erect; stigma slightly dilated. Fruiting-spikes very dense, globular or ovoid; the calyces truncate, about 1 line in diameter.

Hab.: Towards Cooper's Creek.

EUCALYPTUS, L'Her.

E. gracilis, *F. v. M.* (So-called from its slender growth.) Mallee. A tall shrub or small tree, with a silvery-grey smooth bark. Leaves narrow-lanceolate or oblong-linear, mostly mucronate and under 3 inches long, thick and densely dotted, the numerous very oblique veins scarcely visible. Peduncles short, axillary or the upper ones in a short terminal panicle, terete or slightly angular, each with about 4 to 8 rather small flowers. Calyx-tube obconical, usually rather narrow and prominently 4-angled, about 2 lines long, tapering into a very short pedicel or almost sessile. Operculum shorter than the calyx-tube, hemispherical, conical, or shortly acuminate. Stamens inflected and flexuose, the outer ones anantherous and nearly 3 lines long, the perfect ones shorter; anthers small, globular, the cells distinct, opening in circular or oblong pores. Ovary short. Fruit oblong or narrow-urceolate, about 3 lines long, the rim narrow, the capsule deeply sunk.—*Flora Austr.* iii. 211.

Hab.: Warrego.—*John Falconer*.

TRISTANIA, R. Br.

T. longivalvis, *F. v. M.* (Name referring to the long valves of fruit.) A tree of small size, the branchlets pendulous. Leaves scattered on very short petioles, obovate, attaining a length of 4 inches with a breadth of 2 inches, glabrous, finely penninerved and thinly net-veined, somewhat shining above and paler beneath. Cymes axillary or lateral, very spreading, the peduncles slender; pedicels as long as or longer than the flowers, thickened upwards. Calyx-lobes semi-orbicular, deltoid, shorter than the tube. Petals orbicular, yellow, glabrous, about 4 lines wide, hardly contracted towards the base. Stamens shorter than the petals, numerous in each fascicle, the anthers terminated by a turgid gland. Ovary half-adnate to calyx-tube; ovules numerous in each cell. Style 3 lines long, subulate, glabrous; stigma scarcely dilated. Fruit nearly 6 lines long; valves 3, deltoid-lanceolate, acute, and hard; seeds rather numerous in each cell, and closely packed, broad, much compressed, and terminating in a conspicuous membrane, nearly 3 lines long.—Extracted from Baron Mueller's description, *Sou. Sci. Rec.*, ii. (new series), April 1886.

Hab.: Prince of Wales Island, *R. Brown*; Thursday Island, *Rev. B. Scortechini*; Cape York, *B. Gulliver*.

SECTION EUTRISTANIA.

T. lactiflua, *F. v. M.*, *Fragm. i.* 82. (So called from the milky sap which flows from the young shoots when broken.) A small tree, either glabrous or the underside of the leaves and inflorescence glaucous-pubescent. Leaves alternate, often almost verticillate at the ends of the branches, ovate or broadly ovate-lanceolate, obtuse or acute, penniveined, 3 to 6 inches long, on a petiole of about 1 inch. Flowers white, small and numerous, in axillary cymes, the common peduncle often 1 to 2 inches long. Calyx-tube broad, scarcely 1 line long, with very short rounded lobes. Petals about $1\frac{1}{2}$ line diameter. Staminal bundles about as long as the petals, inflexed, the claws short and broad, each with 15 to 20 filaments. Ovary wholly adnate, concave at the top, without any central depression. Ovules reflexed.—*Flora Austr.* iii. 263.

Hab.: Gulf country.—*E. Palmer*.

XANTHOSTEMON, *F. v. M.*

X. pachyspermus, *F. v. M. et Bail.* (Name referring to the thick large seeds.) The Yellow-wood of the Johnstone River. A glabrous tree of medium size, the leaves alternate but often crowded at the ends of the shoots and so close as to appear opposite, petiolate, ovate-lanceolate, at times very obtuse but always much tapered towards the base, 3 to 5 inches long, penniveined, with the primary lateral veins rather distant and prominent. Flowers in slender often raceme-like panicles, 2 or 3 inches long, in the upper axils, on slender pedicels. Capsules somewhat globose, more than half-superior, $\frac{1}{2}$ to $\frac{3}{4}$ inch diameter,

opening in 3 hard valves, rugose on the back. Seeds 1 or 2 in each cell, thick, somewhat flattened, 3 or 4 lines diameter, with a thin glossy testa.

Hab.: Johnstone River.—*Dr. Thos. L. Bancroft.*

By mistake the wood of this tree is described under *Halfordia scleroxylon* (No. 52a) in the Catalogue of the Woods sent to the Colonial and Indian Exhibition.

TRIBE MYRTEÆ.

PSIDIUM, Linn.

(Named from the Greek name of the Pomegranate.)

Calyx urceolate or obovate; limb undivided in æstivation, separating valvately into 4 to 5 lobes when in flower. Petals 4 or 5, free. Stamens numerous. Ovary 2 or more celled, with many ovules in each cell. Berry many-seeded. Seeds with hard testa; embryo curved, radicle long, cotyledons short. Trees or shrubs with opposite entire leaves, and often large white flowers, of tropical and sub-tropical America.

P. guyava, Linn. The Large Guava. A small tree with tetragonal pubescent branches. Bark thin, peeling off in thin flakes. Leaves on short petioles, ovate or oblong, 3 to 6 inches long, nearly glabrous above, pubescent beneath, with the principal nerves prominent. Peduncles axillary, 1 to 3-flowered; buds ovoid in the adnate part, the free part also ovoid, but larger and more or less pointed. Petals broad. Fruit globose or pear-shaped.

Hab.: Naturalised in many Queensland scrubs; very abundant in the Mackay district.—*H. L. Griffith.*

This tree is also naturalised in India. According to Gamble, the bark is used as an astringent medicine and (or the leaves) for dyeing in Assam. The wood, which weighs from 44 lbs. to 47 lbs. per cubic foot, is used for wood-engraving and for tool-handles.

Order MELASTOMACEÆ.

TRIBE MEDINILLEÆ.

MEDINILLA, Gaud.

(Named by Gaudichaud in honour of Don José de Medinilla y Pineda, Governor of Marianne Islands.)

Branching shrubs, erect or scandent. Leaves opposite or whorled, entire, often fleshy, with 3 to 9 longitudinal nerves. Flowers in terminal panicles or lateral cymes, white or rose, with or without bracts, 4 or 5 rarely 6-merous. Calyx-tube ovoid or cylindrical, limb truncate or obscurely toothed. Stamens twice as many as petals, equal or nearly equal (rarely unequal); anthers opening at the top by one pore; connective not (or very shortly) produced at the base, but having two tubercles in front and a spur behind. Ovary inferior, 4 to 6-celled, usually glabrous at the apex; style filiform; ovules very many, placentas axile. Berry crowned by the limb of the calyx. Seeds very many, ovoid or sub-falcate, raphe often thickened and excurrent.—*C. B. Clarke* in Hooker's *Flora of British India*.

M. Balls-Headleyi, *F. v. M.*, Austr. Journ. of Pharm., April 1887. (Named after Dr. Walter Balls-Headley, M.A., of Melbourne.) Climbing, glabrous; leaves quaternary in whorls, ovate or elliptic-lanceolate, longitudinally 3-nerved from near the base; secondary nerves very spreading, distant; veins obliterated; calyx urceolar-campanulate, entire at the margin; vertex of ovary depressed, surrounded by an annular inflexed membrane; fruit 6-celled; placental lamina reaching far into the cavity, very densely beset with oblique, ellipsoid-clavate, smooth, shining seeds.—*F. v. M.*, *l.c.*

Hab: Bellenden-Ker along Alice's Creek.—*W. Sayer.*

This species, the first detected in Australia, is not dissimilar to *M. pterocaula*, but the branchlets are not prominently angular, the leaves are not much decurrent on the petiole, their intramarginal nerve is very faint or obliterated, and the fruiting-calyx is constricted below the orifice; the flora characteristics require to be studied, only leafy branchlets and loose over-ripe fruits being available yet. The fruits are upwards much less attenuated than those of *M. rosea*. On these aged fruits it is difficult to trace the tender bilaminated placental plates; but their attachment seems axillary, not as in *Astronia*, basal. The external resemblance, however, of our new plant to species of the last-mentioned genus is remarkable, though it reminds us also, when in a fruiting state, of several species of *Agapetes*, *Rhodamnia*, and *Rhodomyrtus*.—*F. v. M.*, *l.c.*

Order LYTHRARIÆ.

TRIBE LYTHREÆ.

SONNERATIA, Linn. f.

(Said to be after M. Sonnerat, a botanical traveller.)

Calyx thick, the tube broadly campanulate, adnate to the ovary at the base; lobes 4 to 8, lanceolate or triangular, the sinuses acute with accessory lobes or teeth. Petals 4 to 8, narrow or none. Stamens numerous, inserted at the top of the calyx-tube, inflected in the bud. Ovary enclosed in and partially adnate to the calyx-tube, depressed-globular, 10 to 15-celled; style elongated, with a small capitate stigma. Fruit large, depressed, fleshy, and indehiscent, surrounded by the persistent calyx and adnate to it at the base. Seeds immersed in pulp, angular, with a thick testa; embryo curved. Glabrous trees or shrubs. Leaves opposite, petiolate, rather thick. Flowers large, solitary or 3 together in the upper axils or at the ends of the branches.—Flora Austr. iii. 301.

S. acida, *Linn. f.*, DC. Prod. iii. 231. (Name referring to the acid fruit.) A small evergreen tree found bordering tidal creeks of India, Burmah, and the Archipelago. Leaves petiolate, broadly obovate or ovate, 2 to 3 inches long, the lateral almost transverse veins prominent on the underside. Calyx broad, about 1 inch long, divided to below the middle into about 6 thick valvate lobes. Petals linear, scarcely exceeding the calyx. Fruit $1\frac{1}{2}$ inch diameter.—Flora Austr. iii. 301.

Hab.: On an island near Howick Group, in 1855.—*Baron Mueller*. Also found at Johnstone River, where Dr. Thos. L. Bancroft states that it produces erect root-processes similar to those of *Avicennia*—only much larger. One of these aerial roots brought by him to Brisbane measured over 6 feet in height, with a diameter of

over 4 inches at the base, from which it tapered towards the top. When these curious root formations get injured at the top they frequently fork, but, so far as known, never form leaves either in this plant or *Avicennia officinalis*.

Weight of wood, 31 lbs. per cubic foot. This wood is said by Beddome to be used for models, and in Ceylon to be a good substitute for coal in steamers. The fruit is eaten in the Sundarbans.—*Gamble's Indian Timbers*.

Order ONAGRARIÆ.

ÆNOTHERA, Linn.

Æ. elata, *H.B.K.* Nov. Gen. et Sp. vi. p. 90. (*E. salicifolia*, Desf.) A tall herbaceous perennial 4 or 5 feet high, leaves mostly tufted at the base, linear-lanceolate and distantly toothed and with the stem clothed by a canescent pubescence. Petals yellow, roundish, obovate, retuse; stamens declinate, about as long as the petals. Capsule sessile, cylindrical, slightly angular, clothed by a silky villi.

Hab.: A plant of Mexico and Central America, now naturalised in Queensland.

ALLIANCE PASSIFLORALES.

Order CUCURBITACEÆ.

TRIBE ZANONIÆ.

ALSOMITRA, Benth. et Hook., Gen. Pl. i. 840.

Calyx in the males rotate, 5-parted, segments oblong or oblong-lanceolate. Corolla rotate, 5-parted, segments obtuse. Stamens 5, filaments short, near together at the base; anthers small, oblong, at length recurved, 1-celled; ovary rudimentary. Female, with calyx and corolla as in the male; ovary elongate-clavate, 1-celled; styles 3 or 4, conical, fleshy, with semi-lunate stigmas; ovules very many, pendulous; placentas 3, thick, vertical, parietal. Fruit large, elongate-clavate, terete or sub-trigonous, truncate and 3-valved at the apex. Seeds very many, compressed vertical in 6 rows, much corrugated, incised or horned on the margin with a terminal membranous wing longer than the seed or none. Large climbers, tendrils simple or 2-branched. Leaves with 3 oblong entire or serrated leaflets, with usually 2 glands at the base. Flowers small, diœcious, in compound panicles with filiform branches.—Gen. Pl., l.c.

A. suberosa (sp. nov.) Stems corky. Plant diœcious. Stems climbing to a great height, the lower woody part furnished with corky flanges often 1 inch wide, the young shoots glabrous or slightly mealy. Leaves trifoliolate; leaflets $1\frac{1}{2}$ inch to 4 inches long, entire or with a few obscure teeth, central one ovate-lanceolate, lateral ones obliquely ovate with usually a more or less prominent lobe on the outer edge near the base. Petiole 1 to $1\frac{1}{2}$ inch long, petiolules $\frac{1}{4}$ to $\frac{1}{2}$ inch long, with hairy tufts in the axils. Tendrils simple or 2-branched. Male flowers crowded in pedunculate racemose panicles; pedicels about $\frac{1}{2}$ -inch long, curved after the flower has fallen; calyx-teeth 5, about 1

line long, acute, nearly glabrous; corolla 5-lobed, when expanded $\frac{1}{2}$ to 1 inch diameter, white tomentose outside, pale-yellow inside. Stamens 5, 4 in connate pairs, one distinct (giving the appearance of a 3-stamened flower); filaments slender, short, hairy; anthers oblong, length of filament. Female solitary on long peduncles, flowers similar but rather larger than the males, with 5 separate sterile stamens; style thick, bearing 3 spreading flexuous stigmas. Fruit oblong-ovate, variegated, 3 to 5 inches long, with a diameter of about 2 inches, on a slender peduncle of about 3 inches. Seeds brown, thick, about $\frac{1}{2}$ -inch long, margin thick, irregularly shaped.

Hab.: Enoggera and Ithaca scrubs; fruit ripe in December.

ALLIANCE FICOIDALES.

Order FICOIDEÆ.

TRIBE AIZOIDEÆ.

Calyx free, but with a distinct turbinate tube, bearing the stamens at or below the top.

AIZOON, Linn.

(The name is from the Greek, meaning always alive.)

Calyx free, deeply 4 or 5-lobed. Petals none. Stamens indefinite, usually about 20, inserted at the top of the calyx-tube, free, but more or less in clusters alternating with the lobes. Ovary superior, enclosed in the calyx-tube, 5-celled or in the Australian species 4-celled, with 2 or more ovules in each cell. Styles as many as cells, filiform, stigmatic along the inner side; capsule surrounded by the persistent calyx, depressed, opening loculicidally in as many valves as cells, or in the Australian species the valves split septicidally. Herbs or undershrubs. Leaves alternate or rarely opposite, without stipules. Flower solitary or divaricately cymose.—Flora Austr. iii. 327.

A. quadrifidum, *F. v. M.*, Fragm. ii. 148; Flora Austr. iii. 327; Fragm. vii. 129 and x. 83. (So named from the four divisions of capsule.) A rigid shrub, probably small, with divaricate opposite or dichotomous branches covered as well as the leaves with a dense but close almost scurfy tomentum. Leaves opposite, narrow-linear, obtuse, rather thick and soft, from $\frac{1}{2}$ to $1\frac{1}{2}$ inch long. Flowers terminal in the forks, the pedicels up to 1 inch long. Calyx tomentose; tube short, broadly turbinate, the ribs not prominent; lobes 4 or at times 5, valvate, ovate-acuminate, from 3 to 9. Stamens numerous, densely crowded opposite the sinus of the calyx, more distant opposite the lobes; filaments slender, more or less covered like the ovary with transparent vesicular cells, about as long as the calyx-lobes. Ovary truncate on the top, 4-angled, 4-celled, with 4 styles stigmatic along their inner side. Ovules numerous. Capsule almost free, obpyramidal-truncate, septicidally dehiscent in 4 truncate valves, loculicidally divided almost to the base.—*F. v. M.*, l.c.

Hab.: Queensland Border, Cooper's Creek.—*J. Ivory*.

A. zygophylloides, *F. v. M.*, *Fragm.* vii. 129. (Named from its supposed resemblance to a *Zygophyllum*.) The young branches densely clothed with papulose scales. Leaves lanceolate-ovate, attaining a width of 5 lines, opposite, glabrescent. Flowers solitary, calyx deeply 4-fid, lobes lanceolate-oblong, yellow on the inside, not at all acuminate, almost glabrous. Stamens very numerous; styles 4; ovary 4-celled; ovules numerous. This plant, as seen from the fragmentary specimens examined, seems more a distinct species than a form of *A. quadrifidum*, from which it is mostly distinguished by being more glabrous, and by the form of the leaves and lobes of the calyx.—*F. v. M.*, *l.c.*

Hab.: Queensland.—*F. v. M.*

GUNNIA, *F. v. M.*

Calyx free, deeply divided into 4 lobes, valvate in the bud; petals none; stamens 4, inserted on the calyx-tube and alternating with its lobes; ovary superior, enclosed in the calyx, 4-celled, with several ovules in each cell; styles 4, filiform, stigmatic along the inner side. Capsule enclosed in the persistent calyx, opening loculicidally, each valve splitting septicidally. Seeds numerous, small; testa thin and smooth; embryo curved round a mealy albumen. Small diffuse annuals. Leaves opposite. Flowers terminal or in the forks, nearly sessile.—*Flora Austr.* iii. 327.

G. septifraga, *F. v. M.*, *Rep. Babb. Exped.* 9; *Flora Austr.* iii. 327. Branches slender. Leaves linear. Flowers terminal in the forks. Calyx-lobes acute, about $1\frac{1}{2}$ line long when in flower, 2 lines long when in fruit.—*L.c.*

Hab.: Queensland border.—*F. v. M.*

ALLIANCE UMBELLALES.

Order UMBELLIFERÆ.

TRIBE HYDROCOTYLEÆ.

HYDROCOTYLE, Linn.

H. javanica, *Thunb.*; *DC. Prod.* iv. 67. (Named from the Java plant.) Glabrous, perennial, sarmentose with erect branching shoots over 6 inches high. Leaves suborbicular, membranaceous, alternate, 9-lobed, divided to the petiole; lobes divided to about one-fourth down, crenate-serrate, $1\frac{1}{2}$ to 2 inches broad; petioles erect, longer than the breadth of the leaves; stipules rather wide, entire; peduncle shorter than the petioles, slender, erect, solitary, axillary; heads globular, $\frac{1}{8}$ -inch diameter, bearing from 10 to 20 flowers on very short slender pedicels. Bracts small. Fruit (dotted with purple, *DC.*) with acute primary but without secondary ridges $\frac{1}{16}$ inch broad, emarginate or subcordate at the base; style shorter than the fruit.—*W. P. Hiern* in *Oliver's Flora of Tropical Africa*.

Hab.: Queensland.—*F. v. M.*, *Third Supp. Cens. Austr.* Pl.

Order ARALIACEÆ.

TRIBE ARALIEÆ.

ARALIA, Linn.

Calyx-margin truncate or 5-toothed; petals 5, ovate, imbricate in the bud; stamens 5; ovary 2 to 5-celled; styles 2 to 5, free or shortly connate at the base (at least in the seed-producing flowers). Fruit 4 to 5-celled, 4 to 5-angular, or subglobose 2 to 3-celled. Albumen uniform. Herbs, shrubs, or small trees, glabrous, hairy, or prickly. Leaves alternate or whorled, digitate-pinnate or compound-pinnate; leaflets serrate or nearly entire; stipules not prominent. Umbels solitary or in racemes or panicles, rarely in compound umbels; pedicels jointed close under the flower or not. Flowers often polygamomonoëcious.—*Hooker's Flora of British India*.

A. Macdowalli, F. v. M. (After A. Macdowall.) A small glabrous tree with slender stem and long simply pinnate leaves; the leaflets numerous, 6 to 8 inches long and 2 inches or more broad, the margins entire, pointed at the apex, blunt at the base, both sides dark-green. Umbels solitary or 2 or 3 together, spreading, with a linear-lanceolate bract at the base, the pedunculate umbels arranged on an elongated general flower-stalk. Flowers seceding from the persistent stalklets. Calyces nearly 2 lines long, the lobes occupying about one-fourth of the whole length. Petals nearly ovate, prominently lined inside along the middle. Anthers almost sessile, oblong; styles 2, erect, rather thick, free; stigmas acute, convergent. The ripe fruit said to be blue.—Extracted from Baron Mueller's notice in the Southern Science Record for April, 1886, where the plant is noticed under *Panax*, but from further specimens collected by Mr. Sayer, Baron Mueller finds the plant a true *Aralia*.

Hab.: Russell River.—*W. Hill*. This species approaches *P. Murrayi*.—*F. v. M., l.c.*

PENTAPANAX, Seem.

(So named from the parts of flowers being in fives.)

Calyx-teeth 5, petals 5, imbricated in bud; stamens 5; ovary 5 (or 4) celled; styles 5 or 4, combined to the summit or free for more than half their length. Fruit 5 or 4-celled and angled. Albumen uniform. Trees or large scandent shrubs. Leaves simply pinnate, with 5 to 9 leaflets, or digitate with 3 to 5 leaflets, glabrous. Leaflets entire, crenate, or serrate. Flowers hermaphrodite or polygamous, in compound racemes or umbelled; pedicels jointed close under the flowers.—*Flora of British India* ii. 723.

P. Willmottii, F. v. M., *Austr. Journ. of Pharm.*, April 1887. (Named after Dr. J. Willmott, of Melbourne.) A tree about 30 feet high. Branchlets robust, the leaves crowded towards the summits, pinnate, mostly 5 or sometimes 3-foliolate; petioles slender, about 4 inches long. Stipules about $\frac{1}{2}$ -inch long, rather

narrow, adnate except the summit; petiolules slender, rather elongated to $1\frac{1}{2}$ inch long; leaflets in distant pairs, dark-green on both sides, chartaceous, to 4 inches long, 1 inch wide, elliptic-lanceolate, acuminate, entire, somewhat crisped, shining, blunt at the base, subtle-veined. Umbels almost cymosely arranged, seldom exceeding 4 inches in length; the whole inflorescence much surpassed by the nearest leaves. Flowers not seen. Pedicels somewhat longer than the fruiting-calyx, limb of the latter undulated and bluntly 5-toothed. Styles very short, undivided; disk depressed. Fruit campanulate-semiovate, 5-angled, 5-seeded, not distinctly jointed on the pedicel, about $\frac{1}{4}$ -inch long, their longitudinal angles blunt; pericarp somewhat succulent; each endocarp pale-brownish, dimidiate-ovate, about $\frac{1}{8}$ -inch long, narrowed at the inner angle, rather rounded-blunt at the back, somewhat wrinkled at the sides; testa membranous, not intruding. Albumen equable, but slightly glandular; embryo minute.—*F. v. M., l.c.*

Hab.: Mount Bellenden-Ker, at an elevation of about 5,000 feet.—*Sayer and Davidson.*

So far as the carpologic characteristics are concerned, this plant is clearly referable to the genus *Pentapanax*, and differs from its ally *P. Leschenaultii* in smaller not serrulated leaflets on longer stalklets, in its umbels containing far less flowers, and in the less indented calyx-limb. Perhaps, also, the structure of the flowers and colour of fruit may prove different.—*F. v. M., l.c.*

SUBCLASS GAMOPETALÆ OR MONOPETALÆ.—SERIES INFERÆ.—ALLIANCE RUBIALES.

Order RUBIACEÆ.

TRIBE PSYCHOTRIÆ.

MYRMECODIA.

M. Beccarii, *Hook.*, Bot. Mag. 6883. (After Signor Beccari.) Tuber unribbed, but lobed and covered with small spines which are short and simple; branches swollen with knots; leaves oblanceolate or oblong-oblanceolate, subacute, fleshy, and narrowing into short, stout, nearly half-terete petioles; flowers springing from little sockets situate on the branches; stipules very short and uniting to form 2-fid very thin fugacious membranes; bracts wanting; annular limb representing the calyx glabrous; corolla with a cylindrical tube exceeding in length the ovate swollen lobes; stamens small, having their filaments and short anthers equally long; ovary 4-celled; fruit cylindrical-oblong, rounded at the apex; pyrenes 4.

Hab.: Gulf of Carpentaria.—*Hook., l.c.*

The above species is probably the one mentioned in the Synopsis of the Queensland Flora, p. 231, as *M. Armatum*, but the species of this and a few allied genera cannot be fully determined without consulting Signor Beccari's monograph "Piante ospitatrice." *M. Antoinii*, Becc., and *M. Muelleri*, Becc., are also given as North Queensland species.

ALLIANCE ASTERALES.

Order COMPOSITÆ.

TRIBE ASTEROIDEÆ.

MINURIA, DC.

M. suædifolia, *F. v. M.* in *Flora Austr.* iii. 499; tab. 35 *Vict. Pl.*, under *Kippistia*. A small bushy shrub or undershrub, under 1 foot and often under 6 inches high, glabrous and glaucous. Leaves narrow-linear, nearly terete, under $\frac{1}{2}$ -inch long, mostly recurved at the end. Flower-heads small, pedunculate. Involucre hemispherical, 2 to 3 lines diameter, the bracts oblong-linear, ciliate in few rows. Ray-florets numerous, very little exceeding the involucre; disk-florets numerous, as long as the involucre. Achenes of the ray flat, with a pappus of rather numerous bristles, the outer ones free, the inner ones more or less connate; achenes of the disk abortive, the pappus united in a more or less toothed scarious tube.—*L.c.*

Hab.: Queensland border.—*F. v. M.*

CALOTIS, R. Br.

SECTION CHEIROLOMA.

C. hispidula, *F. v. M.* in *Trans. Vict. Inst.* 130, 1855; *Flora Austr.* iii. 506. A hispid annual, with procumbent or rarely erect branching stems of 8 to 6 inches. Lower and radical leaves petiolate, obovate-spathulate or cuneate, upper ones oblong-lanceolate, toothed towards the end or entire. Peduncle short. Involucral bracts ovate-lanceolate or oblong, hispid or almost muricate. Ray-florets few and very small, the ligula scarcely exceeding the pappus; disk-florets numerous, also small and all fertile. Fruiting-heads 3 to 4 lines diameter. Achenes quite similar in the ray and in the disk, flattened, with thick obtuse margins, slightly hispid; pappus of about 4 to 6 rigid divaricate more or less barbed unequal bristles, alternating with as many much shorter bristles or scales either subulate and entire or palmately 3-fid or sometimes spathulate, and all hispid.—*Cheiroloma hispidulum*, *F. v. M.* in *Linnaea* xxv. 401; *Flora Austr.*, l.c.

Hab.: Near Dalby.—*H. Tryon*. Near Brisbane.—*Dr. Jos. Lautirer*.

BACCHARIS, Linn.

(The Ploughman's Spikenard. The name is said to be derived from one of the species having been dedicated by the Greeks to Bacchus.)

Heads many-flowered, diœcious; florets all tubular and similar. Involucre somewhat hemispherical or oblong, the bracts imbricate in several rows. Receptacle naked or rarely chaffy. Corolla in the sterile florets somewhat dilated and 5 clefts at the summit; in the fertile filiform, somewhat truncate. Anthers exerted in the sterile florets, entirely absent in the fertile. Style in the fertile florets exerted

with glabrous branches, in the sterile florets tipped with an ovate hairy appendage often more or less abortive. Achenes ribbed or grooved. Pappus capillary: of the sterile plant in a single series, often tortuous or somewhat plumose-penicillate, about the length of the involucre; of the fertile plant in one or several series, not thickened or penicillate at the apex, usually much longer than the involucre. Shrubs or undershrubs. Leaves mostly alternate, entire or toothed, often decurrent on the branches. Florets mostly white, rarely yellow or purple. All belonging to America.

B. halimifolia, Linn. (Sea-Purslane-leaved.) Groundsel-tree. A bushy shrub of from 6 to 12 feet, glabrous or somewhat scurfy-glaucous, the branches angular. Leaves 1 to 2½ inches long, obovate, coarsely angulate-toothed above, cuneate at the base and somewhat attenuate into a petiole, the uppermost lanceolate and entire. Flower-heads of the sterile plant subglobose, pedicellated solitary or aggregated; the fertile, somewhat loosely paniced, ovate-oblong bracts of the sterile involucre ovate; the inner ones elongated in the fertile. Pappus of the fertile florets very long, white, and silky.

This American shrub, which has been introduced for garden culture, is becoming naturalised about the towns, and is likely before long to become a pest. The genus contains about 250 species, several of which are supposed to possess medicinal properties in their native countries; others are considered as good fodder for horses. *B. cordifolius*, however—the “Mio-mio” of the Argentine Republic, Banda Oriental, and Uruguay—is said to be poisonous to sheep.

TRIBE INULOIDEÆ.

PTERIGERON, DC.

P. liatroides, Benth., Flora Austr. iii. 532. Erect, rigid, and scabrous-pubescent, hirsute or at length nearly glabrous, attaining sometimes 1½ foot, but often flowering when a few inches high. Lower leaves obovate, narrowed into a rather long petiole, the upper ones oblong-cuneate or linear, obtuse, sinuate-toothed or nearly entire, not decurrent. Flower-heads large, not numerous, in a terminal corymb. Involucre hemispherical, nearly 1 inch diameter, the bracts broadly lanceolate, acute or acuminate, the inner ones 7 to 8 lines long and coloured at the apex. Ray-floret ligulate, exceeding the involucre, the ligula fully ½-line broad and 2 lines long, usually 3-lobed. Style of the disk-florets 2-lobed. Achenes silky villous. Pappus-bristles not numerous, almost plumose.—*Benth., l.c.*

Hab: Queensland border.—*F. v. M.*

TRIBE HELIANTHOIDEÆ.

COREOPSIS, Linn.

(Said to have received its name from the supposed resemblance of the achenes to a bug.)

Heads heterogamous, radiate; ray-florets 1-seriate, conspicuous, female or neuter. Involucre duplex, outer bracts more or less

herbaceous, linear or linear-lanceolate; inner membranous, subequal, 1-2-seriate, broader than the outer; bracts sometimes appearing more or less connate at base. Scales of receptacle plane or slightly concave, membranous, striate. Anther-base entire or bidentate. Style-branches truncate or with an abrupt subulate appendix. Achenes usually much compressed, linear-oblong or obovate; margins sometimes winged, apex with 2 filiform subulate or broad-based aristæ, usually barbellate with setæ directed upwards. Herbs or undershrubs more or less, with opposite often pinnatisect or deeply divided simple leaves, and pedunculate, solitary, or variously cymose, yellow, conspicuous flower-heads.—Fl. Trop. Africa.

C. tinctoria, Nutt. Annual, stems branching, 1 to 3 feet high, glabrous. Leaves pinnately divided into narrow-linear segments. Peduncles terminal ray-florets, rays toothed at the end. Achenes oblong, minutely tuberculate or smooth. A well-known showy garden annual, now become naturalised about Taylor's Range.

Hab.: Introduced from North America.

TRIBE CICHORIACEÆ.

LACTUCA, Linn.

(The name is derived from *lac*, milk; referring to its milky juice.)

Heads of numerous yellow florets, all ligulate and fertile. Involucre campanulate; scales herbaceous, 2 to 3-serial, imbricate. Receptacle flat, naked. Anthers sagittate at the base, not tailed. Style-branches terete. Achenes broad, glabrous, flattened, with a distinct beak and a long pappus of copious, soft, fine, simple hairs. Herbs, with milky juice, alternate often compound leaves, and numerous heads in loose panicles.

L. scariola, Linn. Prickly Lettuce. An erect stiff annual or biennial, 2 to 5 feet high, of a more or less glaucous green, with short but spreading branches, and quite glabrous except a few stiff bristles or small prickles on the edges or on the midrib of the leaves. Leaves more or less spreading, varying from lanceolate to broadly oblong, either bordered only with small teeth or with a few short lobes or coarse teeth usually curved downwards, or deeply pinnatifid with narrow lobes; the upper ones narrow, more entire, and clasping the stem with pointed auricles. Flower-heads in a more or less leafy panicle, sometimes long and narrow, sometimes more branched and spreading. Involucres 4 or 5 lines long, of a few imbricate bracts, the short, broad, outer ones passing gradually into the inner long narrow ones. Florets 6 to 10 or 12, of a pale-yellow. Achenes much flattened, obovate-oblong, striated, varying in colour from white to nearly black, with a slender beak about the length of the achene.—*Benth.* in British Flora i. 485.

Hab.: This European weed has become naturalised in cultivated fields, and at the Rosewood is considered injurious to stock. The milky juice when inspissated has been used as a substitute for opium.—*Lindley*.

ALLIANCE CAMPANALES.

Order STYLIDIEÆ.

STYLIDIUM, Swartz.

SERIES LINEARES.

S. lineare, Swartz, DC. Prod. vii. 333; Flora Austr. iv., ii. (Name alluding to the linear form of leaves.) Glabrous except the inflorescence, like *S. graminifolium*, and resembling that species in its linear leaves, dilated towards the base, racemose inflorescence and undivided calyx-lips, but it is a smaller species, the leaves very narrow, acute, usually incurved, not exceeding 2 inches, and often much shorter. Scapes slender, the raceme 2 to 4 inches long, and much looser than in *S. graminifolium*. Flowers smaller, on pedicels of 1 to 2 lines, the calyx-tube linear, and the ripe capsule much narrower than in that species.—*Benth.* in Flora Austr., l.c.

Hab.: Fraser's Island, *W. Hill*, according to Baron Mueller in Chemist and Druggist of Australasia, Jan. 1888.

S. Floodii, *F. v. M.*, Fragm. i. 149. A slender annual, sometimes shortly proliferous at the base. Leaves all radical or in a second tuft at the end of the short stem, very narrow-linear, almost filiform, obtuse or acute, $\frac{1}{2}$ to 1 inch long, glabrous or sprinkled with a few hairs. Scapes or peduncles usually several, leafless, slender, 3 to 6 inches high, usually sprinkled with a few hairs at the base, the inflorescence glandular, pubescent. Flowers very small, in loose more or less corymbose panicles, all pedicellate. Calyx a little more than 1 line long, the lobes short and obtuse, free or the 2 lower ones united. Corolla pink, the tube longer than the calyx-lobes, the lobes unequal, the throat with or without small appendages, the labellum without any. Capsule ovoid, 1 to $1\frac{1}{2}$ line long.—Flora Austr. iv. 14.

Hab.: Sources of Cape River—*Bowman*, l.c.; Musgrave Electric Telegraph Station—*T. Barclay-Millar*—whose specimens show taller plants with often dichotomous branched inflorescence.

Order GOODENOVIEÆ.

GOODENIA, Sm.

SERIES FOLIOSEÆ.

G. calcarata, *F. v. M.*, Fragm. vi. 14. An erect, rather stout, glabrous, and often glaucous, annual of $\frac{1}{2}$ to 1 foot, the stem very angular. Leaves deeply pinnatifid, with ovate-oblong or lanceolate deeply-toothed segments, the terminal one sometimes large and the others small or all more nearly of a size; the upper floral leaves reduced to small bracts. Peduncles solitary in the axils, forming a terminal raceme. Bracteoles none or very minute under the flowers. Calyx and corolla nearly those of *G. grandiflora*, but the hollow protuberance of the adnate part produced into a small spur. Capsule ovate, 4 to 5 lines long. Seeds of *G. grandiflora*.—Flora Austr. iv. 69.

Hab.: Mueller River.—*F. v. M.* in Vict. Nat., Feb. 1887.

G. Chambersii, *F. v. M.*, *Fragm. i.* 204; *Flora Austr. iv.* 70. (After James Chambers, of South Australia.) A small shrub or undershrub, slightly velvety, branches or stems angular. Leaves rhomboid-orbicular, coarsely toothed, $\frac{3}{4}$ to 1 inch in diameter on slender petioles of about the same length or a little longer. Flowers axillary, solitary; peduncles angular, about as long as the petioles, with two narrow bracteoles near the base; calyx-lobes linear-lanceolate, corolla yellow faintly streaked with purple, pubescent in the lower part, about $\frac{1}{2}$ -inch long, the lobes deeply divided, the adnate part of the tube with a very prominent saccate protuberance. Capsule oblong, under $\frac{1}{2}$ -inch long. Seeds flat with nerve-like margin, but not winged.

Hab.: Lawn Hill, on sandstone ranges.—*Frank Hugh Hann.*

SECTION AMPHICHILA.

G. lamprosperma, *F. v. M.*, *Fragm. i.* 116; *Flora Austr. iv.* 79. This species is nearly allied to *G. gracilis*, but is more rigid and branching. It attains about $1\frac{1}{2}$ foot in height, and has but few stem leaves. The radical leaves are linear or lanceolate, rather thick, and prominently veined, broadish and occasionally toothed. Flowers smaller, but resembling those of *G. gracilis*, as do also the capsule and seed.

Hab.: Norman and Gilbert Rivers.—*T. Gulliver. F. v. M.* in *Vict. Nat.*, May 1888.

SERIES HETEROMERÆ.—ALLIANCE ERICALES.

Order VACCINIACEÆ.

Calyx-tube ovoid, adnate to the ovary; limb 5-fid, usually persistent. Corolla tubular, 5-toothed, or shortly campanulate with 5 long segments, deciduous. Stamens 10, epigynous, free; anthers opening by apical pores, often produced upwards into 2 tubes opening by slits from the apex. Ovary inferior, 5-celled or falsely 10-celled. Style cylindrical, stigma simple; ovules many (rarely few) at the inner angle of each cell. Fruit a berry, rarely dry, 5 or falsely 10-celled. Seeds many, or several (rarely 1) in each cell, small, compressed, albuminous; radicle next the hilum. Shrubs or small trees; sometimes epiphytes with the stems greatly thickened at the base. Leaves alternate or falsely whorled, entire or serrate. Stipules none. Flowers racemose or axillary and solitary, pedicels 1-bracteate and often 2-bracteolate, often thickened and articulate beneath the ovary.—*Clarke* in *Indian Flora*.

TRIBE THIBAUDIÆ.

AGAPETES, D. Don.

(From *agapetos*, beloved—in reference to the plants being showy.)

Calyx-tube globose; limb 5-fid or 5-partite, persistent. Corolla tubular or campanulate, shortly or deeply 5-lobed, red, often with transverse marks, or the lobes greenish-white. Stamens 10, filaments usually short; anthers elliptic, produced upwards in 2 long beaks

opening by apical pores or slits, often spurred behind. Ovary 5-celled or spuriously 10-celled; style cylindric, stigma capitate; ovules very many. Berry globose, succulent or nearly dry, 5-celled or spuriously 10-celled, often opening by 10 pores round the disk within the calyx-teeth. Seeds very many, ellipsoid, outer coat very lax. Shrubs, often epiphytic; stem often greatly thickened at the base. Leaves alternate, sometimes falsely whorled, from linear to elliptic, entire or toothed, sessile or shortly petiolated, often with glands at the apex of the petiole, usually coriaceous. Flowers axillary, corymbose fascicled or solitary; pedicel often thickened or articulate under the ovary; bracts small.—Flora of British India iii. 443.

A. Meiniana, *F. v. M.*, Vict. Nat., Mar. 1887. (After Dr. G. A. Mein, of Victoria.) Tall, somewhat climbing, glabrous throughout. Leaves rather large, scattered, on short stalks, coriaceous, from almost lanceolate to roundish-ovate, acuminate, generally rounded at the base, not denticulate, shining on both sides; dark-green above, pale-green beneath and there dotted with minute scattered glands, strongly 5-nerved from near the base, the veins amply reticulated and partly prominent. Pedicels axillary or lateral, 3 or 2 together or solitary, with 2 minute deltoid bracteoles near the base. Calyx campanular, semi-ovate, separable by articulation from the pedicel, almost truncate, only minutely denticulate. Corolla several times longer than the calyx, dark-red, broadly tubular, terminated by 5 very short almost deltoid lobes. Stamens 10, enclosed; filaments glabrous, hardly half as long as the anthers, flat, semi-connate in pairs and with their dilated portion adherent to the base of the corolla. Anthers erect, free, fixed above their base, fully half as long as the corolla, cylindric-linear, without any appendages, their lower portion subtile-rough and at the blunt base somewhat bent forward, their upper portion paler, smooth, bifid, each division pointed and opening with a longitudinal fissure. Style filiform, glabrous; stigma minute, undivided. Ovary exceeded by the limb of the calyx, depressed and glabrous at the summit. Fruit almost campanulate in outline, rather hard, 5-celled, placentas turgid. Seeds rhomboid or clavate-ovate, pale-brownish, shining, reticulate.—*F. v. M.*, *l.c.*

Hab.: Collected by Messrs. *Sayer* and *Davidson* on the summit of Mount Bellenden-Ker.

NOTE.—Baron Mueller says this new species bears some resemblance to *A. vitiensis*, but the leaves are usually broader and more prominently veined, the corolla is less dilated towards the upper end, and its lobes are considerably smaller, while the anthers are less curved at the base and open with longer slits. It differs from the Himalayan *A. setigera* in the lobeless calyx. It approaches the Papuan species, *A. Forbesii*, but that species has a semi-globular calyx and longer-lobed corolla; the stamens and fruits are also different.—*F. v. M.*, *l.c.*

Order ERICACEÆ.

Calyx free (or in *Diplycosia* sometimes much adnate to the ovary), 5 (rarely 4 to 6) fid or 5-partite. Corolla hypogynous, often campanulate or urceolate, sometimes deeply lobed or (in *Pyrola*) petals free;

lobes 5 to 20. Stamens 10, vary 5, 8, or 20, hypogynous or slightly attached to the base of the corolla (in *Diplycosia* sometimes epigynous); filaments free; anthers oblong, opening by pores or slits at the apex (in *Diplache* by longitudinal slits), the cells often produced upwards into tubes, sometimes dorsally spurred. Ovary 5 or 4 to 16-celled; style cylindric; stigma simple or shortly lobed; ovules many in the inner angles of the cells, or placenta often pendulous from the upper angle. Fruit capsular, loculicidally or septicidally 5-valved (in *Gaultheria* and *Diplycosia* enclosed by the enlarged succulent calyx), appearing baccate. Seeds many (rarely few) in each cell, albuminous; testa close or loose or produced. Shrubs, trees, or perennial herbs. Leaves alternate or apparently whorled, entire or serrate, no stipules. Flowers racemed, clustered or solitary, radicles bracteate and often 2-bracteolate. Flowers regular (or in *Rhododendron*, sometimes irregular, sometimes dimorphic).—*Clarke* in Indian Flora.

TRIBE RHODOREÆ.

RHODODENDRON, Linn.

(Rose-tree, in reference to the terminal bunches of often red-coloured flowers.)

Calyx 5-lobed, sometimes small or obsolete, rarely saucer-shaped, persistent. Corolla campanulate, widely funnel-shaped or cylindric, tube long or short, lobes 5 to 10. Stamens 5 to 18, usually 10. Anthers oblong, dehiscing by terminal pores. Ovary 5 to 20-celled. Style long or short, stigma capitate, ovules very many in each cell. Capsule short, woody, or elongate, thinner, 4 to 20-celled, septicidally 4 to 20-valved from the apex, valves breaking away from the placentas; seeds very many, ellipsoid, albuminous; testa close or loose, often shortly crested, or tailed at one or both ends. Trees or shrubs, sometimes very small, often scaly or aromatic. Leaves alternate, often clustered towards the end of the branches, rarely subopposite or falsely whorled, entire, coriaceous. Flowers fascicled or subcorymbose, terminal, rarely solitary or axillary; bracts broad, generally caducous; bracteoles linear.—Flora of British India iii. 462.

R. Lochæ, *F. v. M.*, Vict. Nat., Mar. 1887. (This, the first species of the genus met with in Australia, is named after Lady Loch, the wife of the present Governor of Victoria.) Arboresecent, somewhat scandent. Leaves persistent, mostly whorled, some scattered, conspicuously stalked, flat, nearly ovate, rather blunt, glabrous, well veined, minutely scaly-dotted beneath. Flowers rather large in terminal umbelliform fascicles on very conspicuous stalklets. Bracts cuneate or spatulate-ovate, glabrescent. Calyx rudimentary, oblique-patellar, or sometimes variously short-lobed. Corolla bright-red, glabrous but scaly-dotted outside, slightly hairy inside, the lower portion broadly cylindrical, the upper portion bluntly 5-lobed and conspicuously veined. Stamens 10, slightly emerging from the corolla-tube; filaments short-hairy towards the base. Anthers very small, ellipsoid-cylindrical.

Style nearly as long as the filaments, short-hairy to about the middle; indusium truncate, stigma slightly lobed. Capsule narrow ellipsoid, about as long as the stalklet, or longer, short-hairy, 5-celled. Seeds conspicuously appendiculated.—*F. v. M.*, l.c.

Hab.: Collected by *W. Sayer* and *A. Davidson* on the summit of Mount Bellenden-Ker, at an elevation of about 5,000 feet.

NOTE.—This beautiful and singularly local plant, which attains a height of 20 feet, is cognate to *R. javanicum*, from which it differs in longer petioles, blunter leaves, smooth pedicels, somewhat smaller flowers, as well as more hairy style and capsule. In some respects this Australian species approaches also *R. Griffithianum*, but the disposition and colour of the flowers are very different. From *R. Celebicum* it is easily distinguished by broader not acute leaves, with not concealed veins, by not scaly pedicels, by mostly not narrow bracts, by larger lobes of the corolla, and not scaly ovary. From *R. Arfakianum* it is separated already by glabrous pedicels, by the lobes of the corolla being shorter than the tube and by shorter stamens.—*F. v. M.*, l.c.

Order EPACRIDEÆ.

TRIBE EPACREÆ.

DRACOPHYLLUM, Labill.

(So named from the foliage resembling that of some species of *Dracæna*.)

Corolla-tube cylindrical, oblong or almost campanulate; lobes 5, spreading, imbricate in the bud. Stamens hypogynous or the filaments more or less adnate to the corolla-tube; anthers included in the tube, attached at or above the middle, entire or 2-lobed. Hypogynous disk of 5 distinct scales. Ovary 5-celled, with several ovules in each cell, attached to a placenta suspended from an erect or recurved stipes proceeding from the axis. Style inserted in a shallow or deep and tubular depression of the ovary; stigma small or larger and shortly 5-lobed. Shrubs or small trees, having then a monocotyledonous aspect. Leaves crowded at the ends of the branches or imbricate along them, very concave above the sheathing bases, which fall off with the leaf, leaving annular scars on the denuded stem or branches. Flowers in terminal compound racemes or panicles, or simple spikes or heads.—*Flora Austr.* iv. 261.

D. Sayeri, *F. v. M.*, *Austr. Journ. of Pharm.*, Mar. 1887. (Named after *W. Sayer*, who, with *Mr. Davidson*, recently ascended Mount Bellenden-Ker and collected this and many other new plants.) Stems much elongated, reaching the height of some 20 to 25 feet, the branches intricately spreading, often horizontal, rather elastic, thus forming an almost impenetrable mass. Leaves crowded at and near the upper end of the branchlets, attaining a length of 1½ foot and ¾-inch in width in the lower part, broadly linear, gradually attenuated upwards and much narrowed towards the apex, clasping at the base through longitudinal incurvature, somewhat concave, smooth also along the margin, the floral leaves abbreviated, early deciduous. Panicle terminal, short-stalked, attaining 8 inches in length and seldom more than 1½ inch in width. Bracts narrow, fugacious, under ¼-inch in length, attenuated towards both ends; peduncles and pedicels shortly-downy,

the latter conspicuous, and scattered or somewhat fasciated. Flowers very numerous, occasionally tetramerous. Sepals lanceolate-ovate, acute, glabrous. Corolla about 4 lines long or 3 or 4 times as long as the calyx, quite white or rosy, divided to near the middle into almost semi-lanceolate bluntish lobes. Stamens emerging, inserted near the summit of the corolla-tube; filaments broadish, hardly longer than the anthers. Style of a much less length than the corolla; hypogynous disk shortly divided into semi-orbicular somewhat truncate lobes. Fruit as long as the calyx or slightly longer, broader than long, depressed; placentas conspicuously stalked, deeply pendent. Seed almost oblique-ovate, testa subtle-reticulate.—*F. v. M., l.c.*

Hab.: Found on Mount Bellenden-Ker, at an elevation of between 4,500 and 5,200 feet, by *W. Sayer*.

SERIES BICARPELLATÆ.—ALLIANCE GENTIANALES.

Order ASCLEPIADEÆ.

TRIBE MARSDENIÆ.

DISCHIDIA, R. Br.

***D. ovata*, Benth.** in Hook. Lond. Journ. of Bot. 1843 p. 226. An epiphytical plant, the stems creeping and rooting at the nodes. Leaves on erect slender petioles of about 3 lines, fleshy and broadly ovate, apiculate, about 1 inch long, $\frac{3}{4}$ -inch broad, glabrous, the 3 or 5 primary veins marked on the upper surface by light-coloured lines, giving to the leaf a variegated appearance. Peduncles axillary, about $\frac{1}{2}$ -inch long with a thickened short fork at the end bearing from 5 to 8 flowers. Calyx-segments minute. Corolla about 3 lines long, the tube much inflated, stained with red; lobes short, erect, thick, and dotted with white, glabrous except for the dense ring of erect silky white hairs in the throat, immediately at the base of the corolla-lobes; segments of the corona deeply bifid and incurved.

I have drawn up this description of the Queensland form. *Bentham, l.c.*, describes the leaves as much larger, and does not note the variegation.

Baron Mueller, who has kindly compared for me this fresh Queensland species with those of New Guinea, considers it as belonging to *D. ovata*. He says that the New Guinea form of this plant is very variable as to the breadth of its leaves, and that it has a wide range there, and does not appear to produce ascidia readily, judging from his New Guinea specimens.

ALLIANCE POLEMONIALES.

Order CONVOLVULACEÆ.

TRIBE CONVOLVULÆ.

ARGYREIA, Lour. Fl. 134.

(So named from the silvery covering of plants.)

Scandent rarely sub-erect shrubs. Leaves from cordate-ovate to narrow-lanceolate, silky-hirsute or pubescent. Cymes sessile or pedunculate, capitate or corymbose. Flowers showy, purple or rose,

rarely white. Sepals from orbicular to lanceolate, subequal, or the inner smaller, appressed to the fruit, often somewhat enlarged. Corolla funnel-shaped; limb plaited, very shortly lobed. Stamens included; anthers oblong, never twisting. Ovary completely 4-celled, 4-ovuled; disk annular, often prominent, as long as the ovary; style filiform; stigmas 2, sessile, globose. Fruit indehiscent, baccate or dry, hard or papery, 4 to 1-seeded.—*Hooker's Flora of British India* iv. 184.

A. speciosa, *Sweet*, Hort. Brit. ed. ii. 373. (So called from its showy flowers.) An extensive climber, stems stout, white-tomentose. Leaves 6 to 12 inches diameter, ovate-cordate, acute, glabrous above, persistently white-tomentose beneath, petioles long. Peduncles stout, 3 to 6 inches long; flowers subcapitate; bracts large, ovate-lanceolate, acute, thin softly, woolly deciduous; corolla 2 or 3 inches long, tubular, funnel-shaped, rosy, woolly. Fruit $\frac{3}{4}$ -inch in diameter, globose, apiculate, brown-yellow nearly dry.—*Hooker's Flora of British India* iv. 185.

Hab.: Queensland.—Third Supp. Cens. Austr. Pl.

Order SOLANACEÆ.

SOLANUM, Linn.

S. carduiforme, *F. v. M.*, Fragm. ii. 163. (Thistle-like.) An erect herb of 1 to 3 feet, of a pale glaucous green, covered with a stellate tomentum rather loose on the branches, very short and not dense on both sides of the leaves. Prickles rather slender, but long and very numerous on the branches, leaves, and especially on the female calyces. Leaves narrow, irregularly pinnatifid, with rather narrow, obtuse, entire or sinuate lobes, the whole leaf 3 to 5 inches long. Sterile flowers numerous, in dense racemes on long lateral peduncles. Calyx at the time of flowering about 3 lines long, campanulate, with broad lobes. Corolla not large. Fruiting calyx large, globular, very densely armed with rigid prickles, enclosing a globular berry of $\frac{1}{2}$ -inch or more.—*Flora Austr.* iv. 462.

Hab.: Lawn Hill, Burketown, on sandstone ranges.—*Frank Hugh Hann*.

ALLIANCE PERSONALES.

Order SCROPHULARINEÆ.

TRIBE CALCEOLARIEÆ.

CALCEOLARIA, Linn.

(So named from the fanciful resemblance of the corolla to a slipper, *calceolus*.)

TRIBE APOSECOS.

Calyx 4-parted; segments valvate, nearly equal, the upper segment generally a little broader than the rest. Corolla with a very short tube; limb 2-lipped, the upper short, truncately rounded, entire, the lower often large and inflated, concave, slipper-shaped. Stamens 2,

inserted at the base of the tube; short cells of anthers divaricate (one of which is sterile). Stigma minute. Capsule ovate-conical, 2-celled, opening septicidally, valves bifid; placentas adrate to the dissepiment. Seeds numerous, sulcately angular. Herbs, undershrubs, or shrubs, with opposite verticillate very rarely alternate leaves. Flowers in many-flowered cymes, rarely solitary; yellow, white, or purplish.

C. scabiosæfolia, *Ræm. et Schultes*, Bot. Mag. t. 2405. (*C. pinnata*, R. et P.) (So named from the supposed resemblance of its foliage to that of *Scabiosa*.) An annual pubescent plant from a few inches to over a foot high. Leaves opposite, pinnate or pinnatifid; pinnæ or lobes acuminate, serrate. Flowers in the upper axils, the peduncles lengthening out after flowering, bright-yellow. Calyx 4-parted. Corolla 2-lipped, the upper very short, concave-hooded, the lower large and inflated, nearly orbicular, flattened. Stamens 2, filaments with two arms, one arm bearing a 1-celled anther concealed under the hood of the upper lip of flower, the other sterile arm exserted. Ovary pubescent, 2-celled. Style conical. Stigma simple, seeds numerous.

Hab.: This Peruvian annual has been met with in a naturalised state by Dr. Lauterer on the banks of the Brisbane River.

TRIBE GRATIOLEÆ.

STEMODIA, Linn.

(Said to have been so named from the Greek *stemon* and *dis*—in reference to each stamen bearing 2 anthers or 2 distinct lobes.)

Calyx divided to the base into 5 segments or sepals, all equal or the upper one scarcely larger. Corolla tubular at the base, the upper lip broad, entire or notched, the lower one spreading, 3-lobed. Stamens 4, in pairs; anthers 2-celled with the cells quite separate, usually stipitate. Style dilated at the summit into 2 stigmatic lobes or rarely entire, not winged. Capsule globular, ovate or acuminate, opening septicidally in 2 usually 2-fid valves or in 4 valves, the placentas of the two carpels completely separating at maturity. Seeds numerous, small, striate and usually reticulate. Herbs, rarely undershrubs, more or less glandular-pubescent or villous and often strong-scented. Leaves opposite or in whorls of 3 or 4. Flowers solitary in the axils, the upper ones often forming terminal spikes. Bracteoles usually 2, linear, close under the calyx.—*Flora Austr.* iv. 485.

S. viscosa, *Roxb.*, Pl. Coram. ii. 33 t. 163; *Flora Austr.* iv. 486. (Name alluding to the glandular pubescence of plant.) A perennial with ascending or erect scarcely branched stems from 6 inches to over 1 foot high, the whole plant pubescent or villous, viscid and strongly scented. Leaves opposite or in whorls of three, the lower ones often ovate and contracted into a petiole, the upper ones or nearly all lanceolate, acute, serrate, often dilated and stem-clasping at the base, the larger ones 1 to 2 inches long but often all under 1 inch; the

upper floral ones gradually smaller but usually distant. Flowers axillary, on pedicels shorter or longer than the leaves. Calyx about 2 lines long, the segments narrow, nearly equal or one larger. Corolla twice as long as the calyx, upper lip very broad, entire or slightly notched, the lower with 3 ovate very obtuse lobes. Anthers all 2-celled. Capsule acuminate, as long as the calyx.—*Flora Austr.*, l.c.

Hab.: Musgrave Electric Telegraph Station, North Queensland.—*T. Barclay-Millar*.

LIMOSELLA, Linn.

(So named from the species being found in marshes.)

Calyx campanulate, 2-toothed or lobed. Corolla broadly campanulate or almost rotate, with 5 nearly equal lobes. Stamens 4; anthers 1-celled (by the confluence of 2 divaricate cells); ovary 2-celled at the base only; style short, thickened at the end. Capsule globular, membranous, scarcely dehiscent or opening in 2 valves parallel to the very incomplete dissepiment. Small herbs, tufted, creeping or floating. Leaves clustered or alternate on short barren shoots. Peduncles usually very short, clustered with the leaves without bracteoles. Flowers white or pale-pink, or perhaps blue, usually very small.—*Flora Austr.* iv. 502.

L. Curdieana, *F. v. M.*, *Fragm.* ix. 166. (After Dr. Daniel Curdie.) Perennial, root-stock somewhat thickened, stoloniferous, petioles nearly terete, attaining 6 or more inches in length, about 1 line in thickness. Leaves ovate, floating, about 1 inch long. Flowers in clusters, nearly sessile at the base of the petioles. Calyces attaining 2 or 3 lines, with 5 somewhat acute teeth, fleshy, almost valvate in the bud. Corolla included in the calyx, scarcely 1 line long; lobes whitish-green, pilose on the upper side, slightly imbricate or almost valvate. Stamens 4, didymous, inserted in the throat of the corolla; filaments short; anthers oval-reniform. Style slender, filiform, scarcely $\frac{1}{2}$ -line long. Stigma finely papillose. Capsule large, 2 lines long, ovate-globose, 1-celled, with numerous finely netted ellipsoid seeds.—*F. v. M.* in *Fragm.* ix. 166.

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

Order GESNERACEÆ.

TRIBE CYRTANDREÆ.

DIDYMOCARPUS, Wall.

(Twin-fruited.)

Calyx tubular or campanulate, 5-toothed, 5-fid, or 5-partite, the segments narrow. Corolla-tube elongate widening upwards, or short, broad, and ventricose; limb spreading, somewhat 2-lipped, the upper lip 2-lobed, the lower 3-lobed, the lobes broad, slightly unequal. Stamens 2 lower, rarely 4 perfect, inserted at the base or middle of the tube or rarely higher, included; filaments arched or flexuose. Anthers

connivent or coherent; cells divergent or divaricate, confluent at the point. Disk cupulate, surrounding the ovary or wanting. Ovary free, oblong-linear, imperfectly 4-celled. Style short or elongated, stigma slightly dilated, somewhat entire; ovules densely covering the margins of the placenta. Capsule linear, 2-valved, valves entire. Seeds small, foveolate. Herbs rarely undershrubs, of various habit. Leaves radical, opposite or rarely alternate. Peduncles or scapes axillary, bearing a loose cyme of few flowers.—*B. et H.*, Gen. Pl. ii. 1022.

D. Kinnearii, *F. v. M.*, Vict. Nat., Mar. 1887. (After Rob. Kinnear, of Melbourne.) Stemless. Leaves lanceolate or cordate-ovate, almost membranous, conspicuously serrated, the upper surface sprinkled with septate hairs, the under-surface as well as the long petioles silky-hairy. Peduncles about the height of the leaves, bearing a spreading softly hairy cyme of many small flowers; pedicels capillary, elongated, often in umbels. Bracts narrow. Calyx about half the length of the corolla; segments broad-linear, narrowed upwards. Corolla white, glabrous, upper lobes deeply divided, the middle one of the lower lobes somewhat longer than the others, the tube slightly widened, not quite as long as the lobes. Stamens 2, as well as the style and ovary glabrous. Capsule hardly three times as long as the calyx, about twice the length of the style, narrow ellipsoid-cylindrical, attenuated towards the summit, not stipitate; placentas amply intruding. Seeds almost spindle-shaped.—*F. v. M.*, *l.c.*

Hab.: Collected by *Sayer* and *Davidson* near the summit of Mount Bellenden-Ker.

NOTE.—Baron Mueller says: "This species is in some respects allied to *D. cordatus*, but the vestiture is whitish, the leaves are all radical and long-stalked, the calyces very hairy; the corolla is smaller, and the capsule much shorter. Our plant has the general aspect of *D. macrophyllus*. In the shortness of the corolla-tube *D. Kinnearii* comes near to *Bæa*, and recedes from most of its congeners."—*F. v. M.*, *l.c.*

ALLIANCE LAMIALES.

Order MYOPORINEÆ.

MYOPORUM, Banks et Sol.

M. deserti, *A. Cunn.* This shrub, which is met with in more or less quantity in each of the Australian colonies, has at times been suspected of poisoning stock. A short time since Mr. A. B. Briggs, writing to the Chief Inspector of Stock, said: "I have known 1,200 poisoned out of a mob of 10,000 by eating this bush during times of scarcity of feed."

For further account of this and other suspected poison plants, see pamphlet on the subject by the Colonial Botanist and Chief Inspector of Stock for Queensland.

SECTION DISOON.

Calyx small, narrow. Ovary 2-celled, with ovule in each cell. Fruit compressed.

M. platycarpum, *R. Br.*, Prod. 566; Fragm. vi. 150; Flora Austr. v. 7. (So named from its flattened fruit.) A tall shrub or

small tree, quite glabrous. Leaves linear-lanceolate, acute, entire, or with a few small distant teeth in the upper part, $1\frac{1}{2}$ to 3 inches long, rather thick, contracted into a short petiole. Pedicels often 6 or more in the axils, 1 to 2 lines long. Calyx not $\frac{3}{4}$ -line long, acutely lobed. Corolla more or less bearded inside at the throat, sometimes scarcely 2 lines long with the stamens included, in other specimens twice as large, with exerted stamens. Ovary 2-celled, with 1 ovule in each cell. Fruit ovate or ovate-oblong, acute, much flattened, about 3 lines long.—*Flora Austr.* v. 7.

Hab.: Queensland.—*F. v. M.*, Lithograms ii.

EREMOPHILA, R. Br.

SECTION ERIOCALYX.

E. stronglylophylla, *F. v. M.*, *Fragm.* x. 87. (The name alluding to its roundish leaves.) Plant hoary-tomentose sprinkled with articulate hairs. Leaves orbicular, 4 to 8 lines in diameter. Flowers almost sessile. Calyx-segments 4 to 6 lines long, lanceolate-linear, with long points. The corolla almost of a violet colour, 8 lines long, pubescent outside and also in the mouth. Style glabrous. Ovary velvety.—*F. v. M.*, *l.c.*

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl. and Lithograms ii. plate 23.

SECTION PLATYCALYX.

Calyx campanulate, divided to the middle only into 5 lobes. Flowers and fruit of *Platyphilus*.

E. Macdonnelli, *F. v. M.*, *Rep. Babb. Exped.* 18; *Flora Austr.* v. 22. (Name in honour of Sir Richard G. Macdonnell, Governor of South Australia at the time.) A branching shrub, glabrous or clothed with a hoary or white close stellate or plumose tomentum, or with long spreading hairs, or with both. Leaves oblong-linear or lanceolate, obtuse or acute, contracted at the base but scarcely petiolate, rarely above $\frac{1}{2}$ -inch long. Pedicels solitary, $\frac{1}{4}$ to above $\frac{1}{2}$ inch long. Calyx campanulate, with acute or acuminate lobes about as long as the tube, which is sometimes prominently angled and membranous, sometimes more herbaceous and tomentose without prominent ribs, the whole calyx varying from 4 to 9 lines long. Corolla bluish, glabrous outside, 1 to $1\frac{1}{2}$ inch long, the tube not constricted above the ovary and much dilated upwards, the lobes all broad and nearly $\frac{1}{2}$ -inch long, upper ones more united, the three lower ones more spreading, the lowest rather broader than the others but not notched. Stamens included. Ovary narrow, glandular-dotted and tipped with a few hairs, with 2 pairs of ovules in each cell. Fruit very succulent, ovoid-globose, acute.—*Flora Austr.* v. 23.

Hab.: Queensland.—*F. v. M.*, Lithograms ii. plate 1. First found near Cooper's Creek.

SECTION PLATYCHILUS.

E. Goodwinii, *F. v. M.*, Rep. Babb. Exped. 17; Flora Austr. v. 25. (After — Goodwin.) A shrub several feet high, more or less glandular and viscid, and often hirsute with spreading hairs, which are rarely wanting on the calyces and pedicels. Leaves linear or linear-lanceolate, acutely acuminate, entire, scarcely contracted or even dilated at the base and sessile, the midrib often very prominent underneath, mostly 1 to nearly 2 inches long. Pedicels solitary, $\frac{1}{2}$ to 1 inch long or even more. Calyx-segments much imbricate, lanceolate, very acute, 4 to 8 lines long, the outer one usually broader and the 2 innermost smaller than the others. Corolla more or less pubescent outside, $\frac{3}{4}$ to about 1 inch long, the lobes broad, obtuse, or shortly acute, the 2 uppermost more united, the middle lowest lobe scarcely broader than the others. Stamens included. Ovary shortly ovoid, very hairy, with 2 pairs of ovules in each cell. Fruit very obtuse or retuse, hairy, 4 to 5 lines long, very thick, with a thick, bony, 4-celled putamen. —Flora Austr., l.c.

Hab.: Queensland.—*F. v. M.*, Lithograms ii. plate 2. Most likely near Cooper's Creek.

SECTION STENOCHILUS.

E. Duttoni, *F. v. M.*, Rep. Babb. Exped. 16; Flora Austr. v. 28. (After F. S. Dutton, of S.A.) An erect glutinous shrub, glabrous or the young shoots slightly tomentose. Leaves narrow-lanceolate, entire, tapering into a long acute point, contracted at the base but scarcely petiolate, 1 to 2 inches long. Pedicels solitary, $\frac{1}{2}$ -inch long or more, very spreading, and turned up towards the end. Flowers "orange-red." Calyx segments ovate, acute or acuminate, and 4 to 6 lines long at the time of flowering, afterwards often enlarged, broad, coloured, almost scarious and veined. Corolla usually glabrous outside, slightly bearded inside, 1 to $1\frac{1}{4}$ inch long, the tube constricted above the ovary, then enlarged and slightly curved, the 4 upper lobes short and acute, the lowest oblong, obtuse, separate to about one-third of the corolla. Stamens exserted. Ovary glabrous or slightly glandular-pubescent, with a pair of ovules in each cell. Fruit succulent, shining, shorter than the enlarged calyx, the putamen hard and bony, usually 4-celled, with 1 seed in each cell.

Hab.: Queensland.—*F. v. M.*, Lithograms ii. plate 36.

Order VERBENACEÆ.

TRIBE CHLOANTHÆ.

SPARTOTHAMNUS, A. Cunn.

S. puberulus, *F. v. M.* in Wing's Sou. Sci. Rec., Mar. 1882. Separated from *S. juncea* by Baron Mueller on account of its stellate down, larger leaves, shorter pedicels to the flowers, less pointed segments of calyx, and the stellate hairs on the outside of the corolla.

Hab.: Maranoa and Warrego.

Order LABIATÆ.

TRIBE AJUGOIDEÆ.

TEUCRIUM, Linn.

T. ajugaceum, *Bail. et F. v. M.* (Name from resemblance to an *Ajuga*.) A densely hairy perennial with procumbent quadrangular branches often extending to several feet in length. Leaves 6 to 9 lines long and about as wide, in distant sessile pairs, 3 to 6 or more lobed, cuneate towards the base. Flowers axillary, in short cymes; few flowers, seldom much exceeding the leaves. Calyx about 3 lines long; teeth acute, of equal length with the tube. Corolla exceeding the calyx by about $\frac{1}{2}$ -inch, slightly pubescent outside, with a tuft of white hairs on either side in the throat; upper lip oblong, about equal in length with the lateral lobes of the lower lip; middle lobe much larger and very obtuse. Stamens more or less hairy, densely so close under the anther. Nuts glabrous.

Hab.: Musgrave Electric Telegraph Station, North Queensland.—*T. Barclay-Millar*.

SUBCLASS MONOCHLAMYDEÆ.—SERIES CURVEMBRYEÆ.

Order NYCTAGINEÆ.

TRIBE MIRABILIEÆ.

MIRABILIS, Linn.

(Name from the Latin, signifying something wonderful or admirable.)

Flowers regular, hermaphrodite. Calyx petaloid-tubular or tubular-infundibuliform. Limb usually patulous, 5-dentate, membranous-dilated between the teeth and induplicate-contorted in the bud; tube slightly dilated at the base and somewhat constricted above dilatation, upper part caducous. Stamens 5, unequal, even with or slightly longer than tube of perianth, alternating with its teeth; filaments 1-delphous at base, sometimes connate in a short, thick, fleshy, disk-like tube, free above; anthers short, 2-celled, laterally or subintrorsely rimose at margins. Ovary free above, surrounded at the base by a thin disk, 1-celled; style slender, recurved at apex; summit globose, divided into short simple or slightly ramose, capitate, stigmatiferous branches; ovule 1, sub-basilar, suberect, inserted in internal angle of the ovary, anatropous or sub-campylotropous; micropyle anterior, inferior. Fruit (an achene or nearly a caryopsis) clothed with hardened 5-agonal base of the calyx and base of stamens; internal albumen of suberect seed farinaceous; cotyledons of incurvo-involute peripheral embryo incumbent, unequal (the interior smaller); radicle cylindro-conical, inferior. Herbs: roots usually tuberous-conical, stem and branches articulate at nodes; leaves simple, opposite, exstipulate; flowers crowded in cymes at ends of twigs (sometimes 1-parous); involucre (sometimes calyciform) formed of 5 large bracts connate at base, imbricate or

subvalvate, 1-flowered in *Enmirabilis*. Flowers articulate at base beyond involucre.—*Baillons*, Nat. Hist. of Plants iv. 18.

M. jalapa, *Linn.*; *Choisy* in DC. Prod. xiii. 2427. (So named from its being at one time supposed to furnish the jalap of commerce.) Marvel of Peru or Four-o'clock. Stems thick, subglabrous, dichotomously branched, arising annually from a thick tuberous rootstock. Leaves opposite, ovate, acute, petiolate. Flowers terminal, 3 to 6 together, red, white, yellow, or variegated, each enclosed in a calyx-like involucre with 5 long lanceolate teeth, a cylindrical perianth-tube 1 to 1½ inch long, a spreading limb 1 inch broad, with 5 round lobes, 5 stamens incurved at the tip with minute anthers, and an obovoid or subglobose black 10-ribbed fruit, surrounded by the indurated base of the perianth.

Hab.: This tropical American plant has become naturalised near settlements in several parts of Queensland.

The juice of the leaves is applied to wounds and bruises; boiled in water they are used as a stimulating poultice to boils and buboes; the roots possess purgative properties; the seeds are used to adulterate black pepper in India, according to Dr. Dymock. Although these seeds could be obtained in quantity in Queensland they are not likely to be applied to the above purpose while grocers can obtain linseed meal.

Order AMARANTACEÆ.

TRIBE AMARANTEÆ.

PTILOTUS, R. Br.

P. latifolius, *R. Br.* in App. Sturt's Exped. 25. (Broad-leaved.) Stems erect, much branched, attaining the height of 2 feet, the branches and young foliage covered with an intricate white cottony wool, the older leaves becoming glabrous. Leaves obovate, very obtuse, rather thick, with slightly crisped margins, contracted into a rather long petiole, the largest about 1 inch long, the upper ones smaller. Spikes nearly globular, fully ½-inch diameter, numerous, sessile or shortly pedunculate, terminal or in the upper axils, usually with 1 or 2 small herbaceous leaves close under them. Bracts and bracteoles thinly scarious, white and shining, very broadly ovate or almost orbicular, obtuse, loose or spreading, 2½ to 3 lines long. Perianth not 2 lines long, the base a very short open disk, the segments with a narrow base densely clothed outside with long woolly hairs, glabrous inside, the lamina or upper half rather broader, obtuse and glabrous. Stamens all perfect and nearly equal. Ovary glabrous.—*F. v. M.* in Flora Austr. v. 244.

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

TRICHINIUM, R. Br.

T. parvifolium, *F. v. M.*, Rep. Babb. Exped. 19. (Small-leaved.) Plant slender, pubescent, with a few short woolly hairs. Leaves minute, ovate or lanceolate, acute, none seen exceeding 1 line in length. Flowers small.—Flora Austr. v. 241.

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

D

Order CHENOPODIACEÆ.

TRIBE ATRIPLICEÆ.

ATRIPLEX, Linn.

SERIES PARVILOBÆ.

A. limbatum, *Benth.*, Flora Austr. v. 178. (Alluding to the appendages of fruit.) A procumbent perennial with a thick stock, scaly-tomentose. Leaves obovate or oblong, entire or angular-toothed. Flowers monœcious, all axillary, the male clusters in the upper axils surrounded by females, the lower clusters all females. Fruiting perianth with a cylindrical tube enclosing the fruit, as in *A. leptocarpa*, but sessile and usually rather larger and harder, and sometimes the solid base much elongated, extending the whole tube to $\frac{1}{2}$ -inch or more, but varying in this respect even in the cluster; the orifice closed by 2 valves reduced to 3 lobes, of which the lateral ones are spreading, incurved, and hornlike, about 1 line long; those of the 2 valves more or less united, the central lobe minute or almost obsolete, and alternating with the horns are 2 herbaceous, spreading, broad, dorsal appendages, also about 1 line long, giving the apex of the perianth the appearance of a spreading 4-lobed limb, but with the disk closed. Radicles of the seed ascending or superior.—Flora Austr. v. 178.

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

TRIBE CHENOLEEÆ.

BABBAGIA, *F. v. M.*

B. scleroptera, *F. v. M.* in Sou. Sc. Rec., Nov. 1885. (Name alluding to the hard wing-like appendages of fruit.) Leaves short, almost semi-cylindrical; axils not distinctly bearded; tube of the fruit-calyx turgid, downward smooth, deeply excavated at the base inside, streaked towards the summit, terminated by generally 5 but sometimes fewer rhomboid or obovate-cuneate not membranous appendages; seed lodged above the middle of the calyx-tube.

Hab.: Near the Warrego.—*Betche*.

This species differs from *B. pentaptera* particularly in the deep basal empty cavity of the fruit, in the appendages not reaching to the base of the calyx-tube and not or only slightly expanding into a tender membrane. Indeed this new plant is nearer to *B. acroptera*, from which it is distinct in its fruit-calyx being more turgid and not oblique at the base, and producing an augmented number of appendages devoid of any ample terminating membrane.—*F. v. M.*, *l.c.*

B. acroptera, *F. v. M. et Tate*, Trans. Roy. Soc. of Austr. vi. 108, 1883. (Name alluding to wings on the top of fruit.) Leaves oblong, semi-cylindrical; fruit-calyx above the tubular base turgid, thence produced into two oblique-roundish or broad-cuneate completely terminal and conspicuously stipitiated membranous appendages.—*F. v. M.*, *l.c.*

Hab.: Queensland, *F. v. M.*—Third Supp. Cens. Austr. Pl.

The following, according to Baron Mueller, are the chief characteristics which distinguish this plant from *B. dipterocharpa*: The narrower hollow base of aged calyx-tube, the more stipitate not reniform appendages, one of the two being more developed than the other.

SERIES DAPHNALES.

Order LAURINEÆ.

TRIBE PERSEACEÆ.

PERSEA, Gärtn.

Flowers hermaphrodite, or rarely by abortion polygamous. Perianth-tube short; segments 6, nearly equal or the 3 exterior smaller, seldom very small. Perfect stamens 9, in 3 series, the first and second eglandulous, the third inner series with 2 globose glands at the base; anther introrse, 4-celled; filaments villous. Staminodia with cordate triangular heads. Ovary sessile. Stigma discoid. Berry more or less thickened and fleshy. Trees, with alternate or opposite penninerved or triplinerved leaves. Flowers paniculate, axillary or subterminal.

P. Baileyana, *F. v. M.* Candle-wood of Frazer's Island. A scrub tree attaining the height of about 60 feet, glabrous except the inflorescence. Leaves opposite, or here and there alternate, ovate or ovate-lanceolate, 2 or 3 inches long, on petioles of about $\frac{1}{2}$ -inch, green on both sides, prominently triplinerved and finely reticulate, most conspicuous on the underside. Inflorescence terminal or in the upper axils, forming short trichotomous panicles, or more or less racemose, bearing distant few-flowered clusters. Perianths silky-white, on short pedicels; segments about 2 lines long.

Hab.: Frazer's Island.—*H. St. John Wood.*

Order PROTEACEÆ.

TRIBE GREVILLEÆ.

HOLLANDÆA, *F. v. M.*, Chem. and Drug. of Austr., June 1887.

(Name in honour of Sir Henry Holland, Bart., Secretary of State for the Colonies.)

Flowers bisexual, petals symmetrical at first, coherent into a straight tube, soon disconnected. Stamens inserted within the dilated summit of the petals. Anthers almost sessile, broadly linear by prolongation of the connective, bluntly apiculated; pollen-grains roundish, tetrahedral, smooth. Style straight, capillary. Stigma ellipsoid clavate, terminal. Hypogynous glands 4, roundish, somewhat connate. Ovary sessile, conical-ellipsoid; ovules many, bi-seriate, placed horizontally. Fruit large, bursting anteriorly into 2 hard, widely expanded, dorsally connate valves. Seeds several, placed in 2 rows against each other horizontally, comparatively very large, flatly compressed, except the terminal and basal seed; all others either dimidiate or truncate; orbicular, very thick, the inner margin often triangular and overlapping. Testa membranous and partly chartaceous, not expanding into any appendage. Albumen none. Cotyledons whitish, hard-carulent, thick, more or less unequal, flat on one side, angular on the other, dorsally broad and abruptly rounded, anteriorly narrow-edged. Radicle minute, enclosed within the cotyledons, near

the point of the attachment of the seed. A tree of intra-tropical Queensland, with rather large leaves, scattered or sometimes opposite; racemes spike-like, much elongated, lateral, and perhaps also terminal. Bracts minute. Flowers in pairs on semi-connate pedicels; petals quite straight before expansion. Fruit ovate-ellipsoid; pericarp dry, transversely impressed inside.—*F. v. M.*, l.c.

H. Sayeri, *F. v. M.* *Helicia Sayeri*, *F. v. M.*, Vic. Nat. iii. 92. Tree about 40 feet high, bark smooth ashy-grey. Leaves (or perhaps leaflets, for the material received by Baron Mueller was fragmentary) scattered, shortly stalked, roundish, ovate, remotely toothed, 9 inches long, 6 inches broad, dark-green, somewhat acute at the base, firmly chartaceous, the lateral nerves rather distant, anastomosing towards the margin, the meshes of primary veins ample. Racemes spike-like, sometimes a foot long, lateral, short-stalked, rhachis glabrous. Bracts minute, narrow, acute. Pedicels very short, semi-connate in pairs, slightly silky. Petals about $\frac{1}{2}$ -inch long, very narrow, except at the dilated summit. Anthers oblong-linear, conspicuously apiculated, almost sessile, connective broad. Style hardly longer than the petals, capillary. Stigma short, clavate-ellipsoid. Ovary glabrous; hypogynous scales roundish, somewhat connate. Fruit $2\frac{1}{2}$ to 6 inches long, the transverse ridges inside the valves only slightly prominent, through marking off the respective spaces occupied by each of the seeds. Seeds fully 1 inch long and $\frac{3}{4}$ -inch broad, and about $\frac{1}{2}$ -inch thick; testa brown, smooth. The fruit resembles that of *Cardwellia sublimis*.—*F. v. M.* in Vict. Nat., Nov. 1886, and Chem. and Drug., June 1887.

Hab.: Russell River and base of Mount Bellenden-Ker.—*W. Sayer*.

HAKEA, Schrad.

H. Persiehana, *F. v. M.*, Austr. Journ. of Pharmacy, Nov. 1886. (After the collector, W. Persieh.) A small tree with slender branchlets, clothed with an appressed down. Leaves thinly filiform, attaining 7 inches in length, glabrescent, not shining or furrowed, the apex pointed but the point easily wearing off. Peduncles about $\frac{1}{2}$ -inch long bearing dense corymbs of small flowers, the rhachis velvety; bracts minute, very deciduous; segments of perianth about 2 or 3 lines long, silky outside; pedicels about the length of perianth. Style almost glabrous; stigma hemispheric-conical, much broader than the summit of the style, peltate and quite terminal; hypogynous gland unilateral, adnate; ovary glabrous; nearly sessile; fruit 1 inch long, $\frac{1}{2}$ -inch broad, lanceolate-ellipsoid, almost dimidiate-oblique, smooth, shortly attenuated at the base, gradually narrowed into the acute apex. Seed-wing not decurrent along the nucleus.—From *F. v. M.*'s description in l.c.

Hab.: Endeavour River.

Baron Mueller considers this species to approach *H. pedunculata* and *H. arborescens*, differing from each in form of leaves and position of stigma.

GREVILLEA, R. Br.

G. pinnatifida, *Bail.* (*Kermadecia pinnatifida*, *Bail.*, Queensland Woods No. 332a.) A very handsome erect tree of medium size, the

smaller branches angular and velvety, with rusty-brown hairs. Leaves alternate, entire or pinnatifid, those of the barren shoots and young plants often exceeding 18 inches in length, divided nearly to the midrib into from 2 to 4 pairs of opposite, long, narrow-linear, attenuated, somewhat approximate lobes about 1 inch broad, with or without a terminal odd lobe, the base decurrent on the petiole; the upper surface of a greyish-green, the under-surface bright rusty-brown, prominently reticulate, the lateral oblique primary veins joining in an intramarginal one some distance from the edge of the leaf. The leaves near the inflorescence simple and lanceolate, about 6 inches long. Inflorescence silky-white in a terminal panicle of raceme-like branches 3 to 5 inches long, bearing pedicellate flowers, scattered solitary or in clusters of 2 or more. Bracts linear, 2 or 3 lines long, very deciduous. Perianth silky, glabrous inside, about 3 or 4 lines long, the segments very narrow, the limb globose; ovary stipitate, glabrous; style filiform; stigmatic disk lateral and somewhat dilated; hypogynous gland broad. Fruit an oblong coriaceous follicle, pendulous on the rhachis, about 7 lines long and 4 lines broad, slightly compressed, bearing the straight persistent style. Seeds 2, bordered all round by a membranous wing.

Hab.: Johnstone River.—*T. L. Bancroft.*

This fine species is allied to *G. Hilliana*, F. v. M., from which, however, it differs in having a paniculate inflorescence, the flowers of which are not so crowded; the fruit is also smaller than that species and not so hard and woody. Before the fruit was seen it was thought probable that the tree was a new *Kermadecia*, under which genus it is provisionally noticed in the Catalogue of Woods sent to the Colonial and Indian Exhibition.

Order THYMELÆACEÆ.

PIMELEA, Banks et Sol.

P. ligustrina, Labill., Pl. Nov. Holl. i. 9 t. 3; Flora Austr. vi. 19. (So named from its resemblance to the *Previt*.) A graceful shrub of 5 to 7 feet, glabrous except the inflorescence or the young shoots slightly silky-hairy. Leaves opposite, from ovate to oblong or elliptical, rather thin, 1-nerved and more or less distinctly penniveined, 1 to 1½ inch long, or on luxuriant shoots twice that size. Flower-heads rather large, globular, on peduncles about 2 inches long; involucre bracts in the typical form 4 or rarely 5 or 6, very broad, as long as the perianth-tubes, glabrous or nearly so. Flowers hermaphrodite, or in some specimens female with shorter perianths, but in both cases apparently fertile. Perianth-tube fully 5 lines long in the hermaphrodite flowers, shorter in the females, in both more or less silky-hairy and circumscribed above the ovary after flowering, the lobes about 1½ line long. Filaments in the hermaphrodite flowers nearly as long as the lobes, the anthers oblong, with a narrow connective; in the females the anthers small, empty, on short filaments, and the style longer. Fruit acuminate, the beak longer in the hermaphrodite than in the female

specimens. Epicarp membranous. Seed oblong; albumen scanty; cotyledons ovate-oblong, flat, but rather thick.—Flora Austr., l.c.

Hab.: Mount Mistake.

SERIES UNISEXUALES.

Order EUPHORBIACEÆ.

TRIBE EUPHORBIÆ.

EUPHORBIA, Linn.

E. corynocladia, *F. v. M.*, Sou. Sci. Rec. ii. (new series), April 1886. (Referring to the club-shaped branchlets.) A glabrous shrub with an undivided stem, about 10 feet high; the ultimate branchlets terete, thickened gradually upwards, 8 to 9 inches long, the summit about $\frac{3}{4}$ -inch thick, marked by almost semi-circular scars, arranged somewhat spirally. Cymes terminal, compound, the ultimate portions recurved, the pedicels clasped by a very narrow membrane. Bracts opposite, reddish, deltoid-ovate, not distant from the flower; tube of the involucre nearly hemispherical, slightly angular. Lobes 5, ovate, obtuse, membranous, fringed, shorter than the renate-orbicular entire glands; bracteoles within the involucre nearly as long as the stamens, somewhat fringed; filaments very short; anther-cells roundish and somewhat compressed laterally; segments of the female calyx 3, very short, oval or roundish; styles free, undivided. Capsule about 4 lines diameter, smooth, nearly globular; seeds globular, about 2 lines diameter; testa brownish, smooth, no conspicuous arillus; embryo narrow. Cotyledons cordate-orbicular.

Hab.: On rocks, Woiweer Island, about 10 miles west of Thursday Island.—*W. Bauerlen.*

This cactus-like *Euphorbia* might be systematically placed near *E. aphylla*.

The whole of the above is extracted from Baron Mueller's description of the plant in vol. ii. of the new series, Southern Science Record, April, 1886.

TRIBE STENOLOBEÆ.

RICINOCARPUS, Desf.

R. speciosus, *Muell. Arg.* in DC. Prod. xv. ii. 204; Flora Austr. vi. 73. A tall, slender, erect shrub, 5 to 7 feet high. Branches clothed by a close, hoary, slightly rusty, stellate tomentum. Leaves shortly petiolate, oblong-linear or lanceolate, the margins recurved, the upper surface bright-green when old, but while young covered by stellate hairs, densely white-tomentose on the under surface, 3 or more inches long and over $\frac{1}{2}$ -inch broad, on petioles of about 3 lines. Bracts linear, nearly as long as the pedicels. Flowers terminal, about 5 together, mostly male, the pedicels about $\frac{1}{2}$ -inch long, with a pair of minute bracteoles about the middle. Calyx-lobes about 2 lines long, 1 line broad, rather obtuse, larger under the fruit. Petals white, oblong, 5 lines long, $2\frac{1}{2}$ lines broad, and shortly clawed. Glands distinct, very broad and densely ciliate, with long white hairs. Capsule oblong,

about $\frac{1}{2}$ -inch long, densely clothed by stellate hairs and bearing the prominently divided styles.

Hab. : Belmont Scrub, near Brisbane. In flower in September.

TRIBE PHYLLANTHÆ.

HEMICYCLIA, Wight et Arn.

H. sepiaria, *W. et Arn.*; *Muell. Arg.* in DC. Prod. xv. ii. 487; *Flora Austr.* vi. 117. Var. (♀) *oblongifolia*. A tall shrub, the young shoots minutely pubescent, the adult foliage glabrous. Leaves petiolate, ovate-oblong or oblong-lanceolate, obtuse, coriaceous and shining when full-grown, but most of those on the flowering specimens still young and membranous, finely veined underneath, $1\frac{1}{2}$ to $2\frac{1}{2}$ inches long. Male flowers several together in axillary clusters, sometimes growing out into short racemes, the filiform pedicels about 2 lines long. Perianth-segments 4, broad, about 1 line long. Stamens 6 to 8 in the flowers examined, inserted round a hollow disk, with the margins undulate as in *H. australasica*. No female specimens seen of the Australian variety.—*Flora Austr.* vi. 118.

Hab. : On the Port Darwin beach.

I have received from Mr. H. L. Griffith, of Mackay, specimens which seem to agree better with the above species than the other Australian kinds, but, not having seen flowers, some doubt still remains.

Order URTICACEÆ.

TRIBE URTICEÆ.

BØHMERIA, Jacquin.

(Named after George Rudolph Bøhmer, a German botanist.)

Flowers monœcious or diœcious, in globular usually unisexual clusters, with small scarious bracts. Male perianth of 4 (rarely 3 or 5) segments or lobes, valvate in the bud. Stamens as many as perianth-segments, with a central clavate or globose rudimentary pistil. Female perianth tubular, compressed, more or less dilated below, usually contracted at the orifice, with a 2 or 4-toothed border. Nut dry, included in the persistent perianth, free or more or less adnate to it, sessile or stipitate, with a long linear-filiform papillose-hirsute style or stigma, protuding from the perianth and persistent on the ripe nut. Seed more or less albuminous. Shrubs or small trees. Leaves alternate or opposite, petiolate, 3-nerved, toothed. Stipules usually deciduous. Flower-clusters axillary, either sessile and solitary or in simple interrupted spikes or short-branched panicles.—*Flora Austr.* vi. 185.

B. macrostachya, *R. Wight* in *Icones*, under *Splitgerbera*. A soft-wooded shrub of 5 or 6 feet, more or less clothed with short hairs. Leaves opposite, ovate-lanceolate or cordate-ovate, acute, 6 to 8 inches long, 3-nerved, serrated, on slender petioles 2 to 4 inches long. Spikes axillary, filiform, interrupted, 4 to 7 inches long. Flowers, male clusters 6 to 8-flowered, female 10 to 12 or more; male perianth of

4 2-toothed segments, stamens 4 with a rudimentary ovary; female perianth tubular, ventricose, contracted, 4-toothed at the apex enclosing the ovary; style long, filiform; stigma simple, acute, villous. Seeds oval, erect, enclosed in the perianth; exalbuminous radicle superior.—From *Wight's* Icones in part.

Hab.: Goamba Creek, Tambourine Mountain.

Many plants of this and allied genera produce valuable fibre.

Class II. MONOCOTYLEDONS.

SERIES MICROSPERMÆ.

Order HYDROCHARIDÆ.

TRIBE VALLISNERIÆ.

VALLISNERIA, Linn.

V. caulescens, *Bail. et F. v. M.* Stems submerged, leafy, lengthening to 18 inches or more, resembling a *Potamogeton*. Leaves numerous, linear, obtuse, from $1\frac{1}{2}$ to 3 inches long and about $\frac{1}{2}$ -inch broad. The few specimens collected show 4 to 3 spathes in the axils of the lower leaves; in the upper axils, however, they are solitary, and all sessile. Calyx-tube under the lobes gradually contracted.

Hab.: Found in the M. Lagoon, about 60 miles west of Normanton, by *Dr. Thos. L. Bancroft*.

Order ORCHIDÆ.

TRIBE EPIDENDRÆ.

DENDROBIUM, Sw.

D. orlaeoides (sp. nov.) (So named from its resemblance to an *Eria*.) Forming large masses on the stems of trees; rhizome creeping, giving origin to numerous terete, finger-like, erect stems, from 2 to 4 inches long and about $\frac{1}{2}$ -inch diameter, more or less clothed by striated sheathing scales (the bases of abortive leaves), bearing at the summit 1 or 2 lanceolate leaves often slightly spirally twisted, about 5 inches long, and 1 inch broad at the middle; the midrib sharp on the under-side, with 3 or 4 more or less prominent longitudinal nerves on either side; the apex deeply emarginate, and the base tapering to a rather long petiole. Racemes 2 or 3 inches long, hoary, erect, lateral, bearing from 6 to 9 small, hoary, dingy-purplish flowers, sessile or very nearly so. Bracts subtending each flower, small, obtuse, scarious, and 1 or more similar ones below the flowers. Calyx-tube with 6 prominent purplish ribs; outer segments 3-nerved, dorsal obtuse-oblong, lateral ones with their oblique bases forming a short blunt spur; inner segments smaller than the outer ones, 3-nerved, sub-glabrous. Labellum of 3 almost equal lobes, with 3 longitudinal nerves, the

2 outer ones supplying secondary veins to the lateral lobes; terminal lobe ovate-obtuse, white; lateral lobes oblique, obtuse, glandular, purplish, closely clasping the short column. Column short; anther white, cordate. The flowers minutely punctate with white dots.

This interesting new orchid was collected by Dr. Thos. L. Bancroft at the Johnstone River. The plant which has afforded material for the above description has lately flowered at Bowen Park.

The pollen-masses correspond both in form and number with those of *Dendrobium*, but the general aspect of the plant is so unlike that of any of this genus with which the writer is familiar that its final inclusion under *Dendrobium* is a matter of uncertainty.

D. Schneideræ, *Bail.*, Occasional Pap. on Queensl. Fl. No. 1 p. 7. Stems or pseudobulbs rather dense, arising from a slender creeping rhizome, short-conical, about 6 lines long and 4 lines in diameter, of a brownish colour and prominently ribbed. Leaves terminal, and, so far as observed, always 2, often twisted, linear-oblong and unevenly emarginate at the end, length less than 1 inch, width about 3 lines. Racemes filiform, terminal, pendulous, $3\frac{1}{2}$ inches long, bearing about 10 small greenish-yellow flowers; bracts minute, lanceolate. Pedicel with calyx-tube under 2 lines long, the latter bluntly ribbed. Segments of flower broadly ovate, incurved, the outer about 2 lines, the inner ones rather smaller; the outer edged by a red line which is not always observable on the inner segments; the spur much curved upwards and rather large for the size of the flower. Labellum about 2 lines long, the lateral lobes ending in a dark-coloured point beyond the middle lobe, which is almost wanting, or very short and truncate. The disk thick, forming, with the abbreviated middle lobe, a cushion-like patch. Column short, the upper part around the stigma marked by a red somewhat horseshoe-like line. Anther-lid white; pollen-masses pale-yellow.

Hab.: Darlington Range.—*H. Schneider*.

This unique little species is dedicated to Mrs. H. Schneider, a lady who has been most successful in collecting and cultivating Queensland ferns and orchids. It is allied to *D. monophyllum*, differing, however, sufficiently to rank as a distinct species.

ERIA, Lindl.

E. australiensis, *Bail.*, No. 1 Occasional Pap. on Queensl. Fl. Stems in dense clusters, slender, terete, from 1 to 2 feet high, often leafy throughout or the lower half closely covered by the scarious bases of fallen leaves. Leaves distichous, glossy, oblong and prominently emarginate, about $1\frac{1}{2}$ inch long and $\frac{1}{2}$ -inch broad, the keel sharp, the midrib extending beyond the margin in the sinus in the form of a small bristle. Racemes axillary or lateral, numerous, about 3 or 4 lines long, the persistent bracts ovate-lanceolate, $1\frac{1}{2}$ line long, the calyx-tube about the same length. Flowers glabrous, small, greenish-white, 3 to 6 in the raceme; segments similar or the inner ones the smaller, ovate, about 1 line long; spur short and blunt. Labellum white marked by faint lines, broadly ovate, strongly recurved, the disk without plates or calli. Column very short and broad, anther

lid sharply conical. Pollen-masses claviform, bright-yellow. Capsule bluntly ribbed and somewhat compressed, probably about $1\frac{1}{2}$ inch long when ripe, but not quite ripe on the plants examined.

Hab.: Johnstone River.—*T. L. Bancroft*.

TRIBE VANDEÆ.

SARCOCHILUS, R. Br.

S. Fitzgeraldi, *F. v. M.*, *Fragm.* vii.; figured in Fitzgerald's *Australian Orchids* i. part 3. Stem 3 or 6 inches long, clothed with leaves or the bases of old ones. Leaves slightly falcate, 4 to 7 inches long and $\frac{1}{2}$ -inch or more broad. Racemes long and drooping, bearing 4 to 8 showy flowers, white spotted with maroon. Bracts small, pedicels about $\frac{1}{2}$ -inch or more long; segments of flower nearly equal, contracted at the base, about 6 lines long; spur short and broad. Labellum not half the length of the other segments, the lateral lobes ovate, falcate, scarcely $1\frac{1}{2}$ line long, the middle lobe scarcely prominent, the solid dorsal protuberance short and obtuse. Disk with a large very prominent callus between the lateral lobes and a smaller one just within the middle lobe. Column spotted with red.

Hab.: Darlington Range.—*H. Schneider*.

S. parviflorus, *Lindl.*, *Flora Austr.* vi. 295; figured in Fitzgerald's *Australian Orchids* i. part 3. Stems very short. Leaves rather thin and falcate, 2 to 4 inches long. Racemes drooping, rather numerous, longer than the leaves, with many green and white flowers on pedicels of about 3 lines. Segments narrow-oblong, 4 or 5 lines long. Labellum nearly sessile at the end of the basal projection of the column, white more or less tinted with yellow; the lateral lobes spotted or streaked with red, ovate-oblong, about as long as the outer segments; the middle lobe very small, the dorsal protuberance or solid spur thickly conical or obovoid, about half as long as the lateral lobes; the disk with several irregular very prominent calli between the lobes. Column more or less stained with red; capsule linear, $1\frac{1}{2}$ to 2 inches long.

Hab.: Darlington Range.—*H. Schneider*.

S. montanus, *Fitzg.*, *Austr. Orchids* part v. (So named from habitat, on mountains.) Stem very short and covered by the bases of old leaves. Leaves about 2 or 3 inches long, slightly falcate. Racemes drooping, bearing a few rather large nearly white flowers; segments ovate, deeply marked in the bud by a purple line, incurved so as to form in the expanded flower a cup. Labellum striped and spotted with red, this differing from *S. falcatus* in its shorter and thicker protuberance, broader and shorter wings, not meeting and overlapping, and its shorter and broader middle lobe. Capsule 3 or 4 inches long and rather thick.

Hab.: Main Range.—*C. H. Hartmann*.

The above characteristics are from *Austr. Orchids*, l.c., and agree well with specimens I had placed with *S. falcatus*, and to which the present should, I think, form a variety rather than a separate species.

TRIBE NEOTTIEÆ.

DIURIS, Sm.

D. sulphurea, *R. Br.*, Prod. 316; *Flora Austr.* vi. 330. Height variable, sometimes tall. Leaves rather broad. Flowers 2 to 5, yellow, blotched with purple at least at the base of the petals. Dorsal sepal about $\frac{1}{2}$ -inch long, embracing the column at the base, narrow-ovate and open upwards; lateral sepals longer, but not very long, often reflexed; petals also longer than the dorsal sepal. Labellum 3-lobed from the base as in *D. aurea*, but shorter than the dorsal sepal; lateral lobes broad, several-nerved and more or less undulate-toothed, middle lobe at least twice as long, very broad, but the sides closely reflexed, the disk with a single raised line along the centre gradually dying off above the middle of the lamina. Lateral lobes of the column acute, quite entire, as long as the anther; the wings joining at the base in the front of the column and continuing with the central keel of the labellum.—*Flora Austr.*, l.c.

Hab : Eight-mile Plains, Nerang Creek.

D. punctata, *Sm.*, Exot. Bot. i. 13 t. 8; *Flora Austr.* vi. 326. (The flowers sometimes dotted.) Stems 1 to 2 feet high, sometimes more. Leaves 1 or 2, linear, 3 to 13 inches long, with 2 empty sheathing bracts above them. Flowers 2 to 5, blue or purplish, often dotted, but not blotched like several of the yellow species (the form just met with in Queensland of a lilac colour; to this Baron Mueller's name of *D. lilacina* would be appropriate), the acuminate bracts often but not always exceeding the ovary. Dorsal sepal in the typical form broadly ovate-oblong, 7 to 8 lines long; lateral sepals deflexed, very narrow, nearly 2 inches long. Petals broadly elliptical-oblong, nearly 1 inch long, including the short claw. Labellum about as long as the dorsal sepal, divided at the base into 3 lobes, the middle lobe obovate-oblong, the lateral ones about one-third as long, oblong-falcate, varying in breadth, entire or crenate; disk of the middle lobe with 3 longitudinal raised lines or plates starting from the base; the 2 lateral ones ending somewhat abruptly, and sometimes forming an acute tooth below the middle of the lobe, the central one not so prominent or obscure at the base, but continued further along the lamina. Lateral lobes of the column as long as the anther, lanceolate with undulate margins, more or less distinctly 1-nerved. Anther shortly acuminate, 2 lines long. Rostellum short, bifid, wings of the column very shortly produced at the base in front, not meeting but often continuous with the raised lines of the labellum.—*Flora Austr.*, vi. 326.

Hab.: Nerang Creek.—*H. Schneider*.

CALADENIA, *R. Br.*

C. suaveolens, *Reichb.*, f. Beitr. 67; *Lyperanthus suaveolens*, *R. Br.* (Sweet-scented.) Glabrous but more or less glaucous, erect, about 14 inches high, with a single linear-lanceolate leaf 6 to 9 inches

long with 4 sheathing scales, 2 above and 2 below the leaf, the lower ones 2 or 3 inches long, somewhat velvety, and strongly striated with dark lines, the upper two or sheathing bracts lanceolate and about 1 inch long. Flowers 3, yellowish, and rather distant; subtending bract about 1 inch long, lanceolate; pedicel about $\frac{1}{2}$ -inch long, calyx-tube not quite so long; segments about $\frac{3}{4}$ -inch long, lanceolate-acuminate, the dorsal one incurved over the column, the two lateral segments deflexed with spreading points; two inner ones erect. Labellum about half the length of the other segments, the erect part broad with the erect lateral lobes rounded and not very prominent, the middle lobe ovate-oblong, obtuse, recurved; calli in 2 rows along the claw or erect part and between the lateral lobes often confluent, the remainder of the disk almost covered with small calli or papillæ. Column incurved and broadly winged. Anther with a prominent point.

Hab.: Stanthorpe—*John Davidson*. Nerang Creek.—*H. Schneider*.

SERIES CORONARIÆ.

Order LILIACEÆ.

TRIBE ASPHODELEÆ.

THYSANOTUS, R. Br.

SECTION HEXANDRÆ.

T. chrysanthorus, *F. v. M.*, *Fragm.* v. 202; *Flora Austr.* vii. 40. (Name alluding to the yellow anthers.) Stock tufted, with fibrous roots not tuberous. Radical leaves rather numerous, very narrow, shorter than the scape. Scape slender, simple, 6 inches to above 1 foot high, bearing a single umbel of 3 to 6 flowers. Pedicels filiform, much longer than and sometimes 3 times as long as the perianth. Perianth usually about 4 lines long. Stamens 6, 3 of them longer but not very much longer than the 3 others. Seeds with a white strophiole.—*Flora Austr.*, l.c.

Hab.: Musgrave Electric Telegraph Station.—*T. Barclay-Millar*.

T. Baueri, *R. Br.* (After the celebrated botanical draftsman of that name.) Root-fibres swollen into ovoid or oblong tubers, generally distant from the stock. Leaves not numerous, narrow, usually much shorter than the scape, with rather broad scarious sheaths, but all withering very early. Scape from under 6 inches to 12 inches high, simple, including the inflorescence, or slightly branched in the upper part. Umbels mostly 2 or 3-flowered, and usually several, sessile along the upper part of the scape and its branches besides the terminal one, the scarious bracts often rather large. Pedicels rather shorter than the perianth. Perianth-segments varying in size but rarely under 4 or above 5 lines long, the opaque centres very dark in dried specimens. Stamens 6, unequal, but the 3 longer ones sometimes not much exceeding the others.—*Flora Austr.* vii. 42.

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

Order COMMELYNACEÆ.

CARTONEMA, R. Br.

C. parviflorum, *Hassk.* in *Flora*, 1869, 365; *Flora Austr.* vii. 91. Plant erect, hoary, 1 to 1½ foot high. Leaves several at base of stem, linear, tapering from the base, usually long and narrow. Flowers distant on the spike, outer perianth-segments 3 to 4 lines long, inner ones yellow and usually more or less dotted with red small dots. Filaments very short. Anthers oblong, the cells opening in some specimens in terminal pores only, in others the slit extending to the base. Capsule small, glabrous.

Hab.: Musgrave Electric Telegraph Station, North Australia.—*T. Barclay-Millar*.

SERIES CALYCINÆ.

Order JUNCACEÆ.

TRIBE XEROTEÆ.

XANTHORRHEA, Sm.

X. minor, *R. Br.*, *Prod.* 288; *Flora Austr.* vii. 114; *Bot. Mag.* 6297. Stem not produced above the surface of the ground. Leaves numerous, 1 to 2 feet long and from 1 to 2 lines broad, flat but thick or more or less triquetrous. Scape 2 to 4 feet high, the spike 3 to 8 inches long, ½ to nearly 1 inch diameter. Spathulate bracts, and outer perianth-segments shortly acuminate, about 2 lines long, quite glabrous, or minutely ciliate at the end; inner segments with white obovate spreading laminæ scarcely 1 line broad. Stamens about twice as long as the perianth, very spreading. Anthers ovate-oblong, much smaller than in most species. Capsule acuminate and 7 to 8 lines long.—*Flora Austr.* vii. 114.

Hab.: Broadwater, in 1872.—*F. M. B.* Mount Gravatt.—*H. Tryon*, January 7, 1887.

SERIES NUDIFLORÆ.

Order PANDANEÆ.

FREYCINETIA, Gaud.

F. insignis, *Blume*, from *Rumphia*. Stem climbing; leaves very long, linear, acuminate (stiff), from base to apex prickly-toothed, with a terminal spadix shortly pedunculate; female flowers (in threes or fives), cylindrical; ovaries of 2 or 3 carpels.

Stem shrubby, thickly clothed with young branches, very loftily ascending, cylindrical, obliquely ringed with branches somewhat sloping down towards the ground, leafy, the wood loosely constructed of fleshy fibrils. Leaves approximately spiral (? in arrangement), with dilated membranous base, by turns overlapping each other, 2 to 4 feet long, 1 to 1½ inch wide, upwards outstretched and flat, the midrib (showing) beneath only towards the apex, margins towards base and apex not spiny,

leathery, rigid, terminal ones very numerous beneath the inflorescences and towards the base. Internally the substance is purplish and fleshy when more completely expanded. Inflorescence terminal, very beautiful, consisting of three or five spadices close together of unequal length, green, scale-like, petaloid, widely ovate, at first closely imbricated, afterwards open with appendages (rudimentary floral scales), some shapeless, narrow, fleshy, minute. The interior scales are small but very thick, whitish, arched, entire, of which several are high up in the apex, thickened in front, silky at the back, curved or erect alternately; others triangular-ovate, acuminate, pale-reddish, beneath concave, above spreading; exterior scales larger, purple, with apices (?) and also here and there denticulate, or it may be in leaves or stems metamorphosed. Spadices of female flowers $1\frac{1}{2}$ to $2\frac{1}{2}$ inches long and 1 inch wide, with peduncles of $\frac{1}{2}$ -inch, afterwards increasing continually in size, rough, semi-terete, white, fleshy. Female flowers very much crowded, with the pistils in threes in one place or in fours in another, surrounded by minute sterile staminodia, of which the subulate filaments are united at the base; anthers apical, adnate, extrorse, oblong-cordate. Ovaries as long as they are small expand prismatically, apices truncate, stigmas disciform, smooth at the margins, in the centre 2 or 3-porous, very minutely papillosely covered, afterwards with apex formed into a neck, moderately elongated, somewhat pointed, attenuated; the stigma terminal, bifid, or ternate, at one time umbilicate, at another tuberculate; at times the disk shows itself with the margin thickened on both sides towards the axis. The ovary contains 2 to 3 placentas, longitudinal, parietal, which support the minute, anatropous, elongated-ellipsoid ovules, each attached by a short umbilical funiculus, 2-seriate mainly. Fruit-bearing spadices elongate-ellipsoid, with berries very densely aggregated, obconical, lateral, with succulent pulp, the inner substance homogeneous. Seeds in gelatinous sporophores, many-sided, cylindrical, at both ends a little obtuse, straightish, or somewhat curved longitudinally, striate, possessed of a very short umbilical funiculus, with appendages resembling costa, apex incurved towards the base. Chalaza coloured brownish, and at times conspicuous.

Hab.: Queensland.—*F. v. M.*

SERIES APOCARPÆ.

Order NAIADACEÆ.

TRIBE POTAMEÆ.

POTAMOGETON, Linn.

P. tricarlinatus, *F. v. M.*, ined. in *Herb. Kew*; *A. Bennett* in *Journ. of Bot.*, June 1887.

NOTE.—The Queensland specimens referred to by Mr. Bennett were collected at Aramac some years ago by Mr. C. W. de Burgh Birch, and were placed by me with *P. natans*. If so, the plant is of a more robust habit, and has larger leaves on shorter petioles; the nuts also have 3 prominent keels, the middle one almost wing-like and more decidedly toothed on its undulate edge.

P. Tepperi, *A. Bennett*, Jour. of Bot., June 1887. (After J. G. D. Tepper, of South Australia.) Stems lengthening, as in *P. natans*. Submerged (lower) leaves 4 inches long by $\frac{1}{2}$ -inch wide, the lamina tapering at either end; upper leaves ovate-lanceolate; floating leaves from oval with subcordate bases to ovate with tapering bases; 21 to 23-veined (3 by $1\frac{1}{2}$ inches), coriaceous, on long petioles enlarged gradually upwards. Spikes $\frac{3}{4}$ to 1 inch long, dense in fruit. Fruit nearly straight on the inner face, rounded, with three angles on the outer face, half-obovate, with a short beak forming a continuation of the inner face, with projecting processes irregularly distributed on the outer angles; embryo with its upper part incurved to half its depth.—*A. Benn., l.c.*

Hab.: Tooloomba Creek.—*F. M. B.*

Mr. Bennett points out that this new species is allied to *P. natans*, Linn., *P. polygonifolius*, Poir., and *P. Leschenaultii*, Cham.; and in herbaria has been mixed with specimens from Australia of *P. tricarinatus* and *P. natans*.

TRIBE NAIADÆ.

NAIAS, Linn.

N. major, *Allioni*. Leaves linear, bordered by broad triangular acute prominent teeth so as to be almost pinnatifid, $\frac{1}{2}$ to nearly 1 inch long, dilated at the base into a very short broad-toothed sheath not different in texture from the lamina nor produced into stipular lobes, "aculeate on the back as well as the stem," but the prickles few or so minute as to be difficult to see on the dried specimens. Flowers diœcious. Male perianth oblong, consisting of a thin membranous sac entirely enclosing the anthers, 2 or 3-toothed and at length bursting irregularly at the top. Anthers sessile, 4-celled. Female flower a single oblong carpel with 2 or 3 linear stigmatic lobes, the ripe nutlet about $1\frac{1}{2}$ line long.—*Flora Austr.* vii. 181.

Hab.: Flinders River.—*F. v. M.* in *Flora Austr.*

Baron Mueller also writes me word that he has had specimens of this Northern water-weed from the Tweed River.

SERIES GLUMACEÆ.

Order GRAMINEÆ.

TRIBE PANICEÆ.

PANICUM, Linn.

P. maximum, *Linn.* (Guinea-grass.) (*P. jumentorum*, Pers.) An erect tall grass 5 to 10 feet high with long rather broad lanceolate-linear leaves ciliate at the base and ligule. Panicle large and loose with numerous capillary much-divided branches, the lower one usually whorled; spikelets numerous, all pedicellate, $1\frac{1}{2}$ to $1\frac{1}{4}$ line long, obtuse. Glumes, lowest short, ovate-rounded, subincurved, 2 superior, little exceeding the fertile, flower 3 to 7-nerved; third male with a palea; fertile flower transversely wrinkled; half-terete.

Hab.: A tropical African grass, now naturalised in Queensland and many other countries.

TRIBE ANDROPOGONEÆ.
POGONANTHERUM, Beauv.

Spikelets in pairs, 1 sessile, the other pedicellate in a simple spike, the rhachis articulate, each spikelet surrounded by long silky hairs. Pedicellate spikelet with 1 female flower; sessile one with 1 hermaphrodite and 1 male flower below it. Glumes all thin and transparent, the lowest 3-nerved, awnless, the second keeled, with a long awn, the third smaller and awnless, empty, or with a male flower, the terminal flowering one very small with a long awn, the awns twisted.—*Benth.*, *Flora Hongkongensis* 421.

P. saccharoides, Beauv. A slender branching often tufted grass, the stems leafy throughout and from 1 to 2 feet high, nodes slightly bearded. Leaves narrow, spreading, $1\frac{1}{2}$ to $2\frac{1}{2}$ inches long, tapering to fine points, sheaths slightly hairy but with long silky hairs at the top similar to the ligula. Spike from 1 to $1\frac{1}{4}$ inch long on a slender thread-like peduncle, the silky hairs and awns often assuming a golden hue. Spikelets about 1 line long, the 5 spreading hair-like awns $\frac{1}{2}$ to $\frac{3}{4}$ -inch long and more or less twisted.

Hab.: Johnstone River.—*W. E. Kefford*, 1884.

The plants brought to Brisbane by Mr. Kefford are now (March) in full bloom. Baron von Mueller writes me that he has received this pretty grass from somewhere in Queensland, but does not state the locality.

TRIBE CHLORIDEÆ.

Chloris unispica, *F. v. M.*, *Fragm.* vii. 118; *Flora Austr.* vii. 611; *Synopsis Queensland Flora* 658.

It is interesting to note that this rare grass, which until now was only known from specimens forwarded by Mr. E. Bowman, from Herbert's Creek, to Baron Mueller about 1870, has been again met with by Dr. Chas. Prentice within a few miles of Brisbane.

TRIBE FESTUCEÆ.
ERAGROSTIS, Beauv.

SECTION MEGASTACHYA.

E. eriopoda, *Benth.* (Referring to the woolly bases of the stalks.) Stems 1 to $1\frac{1}{2}$ foot high, somewhat bulbous and densely woolly at the base. Leaves very narrow, short, the lower sheaths pubescent or hirsute. Panicle reduced to an interrupted spike, or divided into a spreading panicle. Spikelets nearly sessile, scattered or in pairs, very flat, 3 to 9 lines long, about 1 line broad, with 10 to 30 or more flowers. Glumes closely distichous, but rather spreading, obtuse, almost hyaline with a dark-green nerve on each side, glabrous. Palea as long. Stamens 2, with large anthers.—*Flora Austr.* vii. 648.

Hab.: Inland, north-west.

E. Brownii, *Ness.* Var. *patens*, *Benth.* in *Flora Austr.* vii. 647. This grass has a loose, wide, spreading delicate panicle, with smaller spikelets, which are usually pedicellate.

Hab.: In the parks about Brisbane.

POA, Linn.

P. cæspitosa, var. latifolia, Flora Austr. vii. 652. This is a tall broad-leaved form, found here and there on rich mountain scrub lands. At first sight one would almost take it for a small growth of Guinea-grass—*Panicum maximum*—the leaves being often over $\frac{1}{2}$ -inch wide, stalks and leaves nearly smooth, panicle 8 to 10 inches long and 6 or more inches broad.

Hab.: Illawarra, N.S.W.—*Johnstone*. Bunyong Mountains, Vic.—*F. v. M.* Mount Mistake, Queensland.—*Bail*.

P. nodosa, Nees. (Alluding to the knot-like base of stems.) Stems about 2 feet high, forming at the base from 1, 2, or 3 superposed globular or ovoid nodules, 3 or 4 lines diameter. Leaves long, narrow, flat, usually scabrous. Panicle loose, narrow or spreading. Spikelets 3 to 4 lines long, 5 to 8-flowered, rather narrow at first, with closely appressed glumes, about 2 lines long, 5-nerved, without the woolly hairs at the base of most *Poæ*, but shortly ciliate-pubescent on the keel and margins below the middle. Palea nearly as long, the keels minutely ciliate-pubescent or glabrous. Grain free.—Flora Austr. vii. 653.

Hab.: Queensland.—*F. v. M.*, Third Supp. Cens. Austr. Pl.

GLYCERIA, R. Br.

G. ramigera, F. v. M., Flora Austr. vii. 659. (Name alluding to branching habit of grass.) A tall, glabrous, rigid grass, branching at the base, and often bearing clusters of branches higher up. Leaves convolute and flat, few and short on the flowering stems. Panicle 4 to 8 inches long, loosely ovate or at length very spreading. Spikelets rather numerous, usually 3 to 5 lines long, with 6 to 12 flowers, but sometimes longer, the rhachis glabrous, outer glumes narrow, hyaline, acute, faintly 1-nerved; flowering glumes distant, about $1\frac{1}{2}$ line long, broad and concave, hyaline, 3-nerved, the nerves all short, the central one not reaching above the middle.—Flora Austr. vii. 659.

Hab.: Queensland.—*F. v. M.*

Class III. ACOTYLEDONS or CRYPTOGAMS.**Order LYCOPODIACEÆ.****LYCOPODIUM, Linn.**

L. densum, *Labill.*, Pl. Nov. Holl. ii. 104 t. 251. Stems from a short creeping base, erect rigid, usually 1 to 1½ but sometimes 2 to 4 feet high, very densely branched in the upper part. Leaves crowded all round, those of the main stem lanceolate with scarious tips and often 2 lines long, those of the branches imbricate and scarcely 1 line long. Spikes numerous, terminal, erect and sessile, from under ½-inch to 1 inch long. Bracts ovate-lanceolate, with spreading tips often scarious on the margins.—*Flora Austr.* vii. 676.

Hab. : Baron von Mueller writes me that he has received specimens of this species from Queensland.

Order FILICES.**TRIBE MARATTIÆ.****LYGODIUM, Sw.**

L. dichotomum, *Sw.* Stem climbing. Primary petiole so much reduced that the fork seems almost to spring from the main rhachis; secondary 1 to 2 inches long, firm, naked. Pinnules digitate, with 5 to 6 lobes reaching nearly down to the base, or once or even twice forked; ultimate barren divisions 4 to 8 or even 12 inches long, ¼ to ⅔ inch broad, the fertile ones contracted, sometimes so much so that the lamina is nearly lost; the spikes 1 to 2 lines long, in close marginal rows; texture sub-coriaceous; surface naked.—*Baker* in *Synopsis Filicum*.

Hab. : Musgrave Electric Telegraph Station, North Queensland.—*T. Barclay-Millar*.

The portion forwarded was sterile and small, but doubtless belonged to the above species.

TRIBE HYMENOPHYLLÆ.**TRICHOMANES, Linn.**

T. caudatum, *Brackenr.*; Ferns U. S. Expl. 256 t. 36 f. 5; *Flora Austr.* vii. 703. (Alluding to the supposed tail-like apex of frond.) Rhizome creeping, wiry, clothed with hair-like reddish-brown scales. Fronds 3 to 6 inches long, 1 to 1½ inch broad, pinnate, with bipinnatifid pinnæ, some of which are often elongated at the end, similar to the apex of the frond; segments linear, 1-nerved, the upper ones confluent in a tail-like apex. Stipes about 2 inches long, glabrous except quite near the base, which has similar scales to the rhizome. Indusium on the lower inner lobes of the segments, urceolate-cylindrical, the receptacle more or less exserted.

Hab. : Tallebudgera Creek.—*H. Schneider*.

TRIBE POLYPODIEÆ.

ASPLENIUM, Linn.

A. furcatum, Thunb.; Hook., Spec Filic. iii. 165. (*A. præmorsum*, Swartz; R. Br. Prod.) Rhizome thick, dark-brown, scaly-hairy. Fronds tufted, 6 to 18 inches high, pinnate or bipinnate, slightly scaly-hairy. Pinnæ lanceolate, mostly $1\frac{1}{2}$ to 2 inches long, deeply pinnatifid or pinnate; segments varying from oblong-cuneate, toothed, and confluent, to linear-cuneate, distinct, and deeply 2 to 4-lobed, the segments or lobes all coriaceous, denticulate at the end, striate with a few diverging veins. Sori few, large.—Flora Austr. vii. 748.

Hab.: Bunya Mountains, Falls north-west of Mowbuan.—Thos. Tate.

Order CHARACEÆ.

NITELLA, Agardh.

SECTION POLYGLOCHIDES.

N. oligospira, A. Br. Plant rather small and slender, flexuose; the sterile and fertile whorls of somewhat similar form, loose, the old foliage duplicate or subtriplicately forked, the ultimate segments (when tertiary very short) 2-celled, the second cell ending in a sharp point. Sporangia solitary, with a short obtuse crown. Nucules subglobose, yellowish-brown, prominently 6-gyrate, 0, 26-0, 28 mm. long.—Monatsberichte der Berl., Akad. 1885, p. 357.

N. o. var. australiensis, O. Nordstedt.

Hab.: Ithaca Creek, Taylor's Range.—H. Tryon.

Dr. O. Nordstedt, a specialist on these plants, and who determined this form, after remarking that it is the first time a representative of the section *Polyglochides* (*trachydactylæ*) has been found in Australia, states:—

"The place of this Australian form cannot be fixed exactly, because the sporangia are not ripe. Yet it seems nearest the form *indica* of *oligospira*; the habit of *N. pseudotabellata*, A. Br., f. *muscosa*, Nordstedt, New Zealand. Branchlets 4-5, divided into 3-4; ultimate rays 2-3.—O. Nordstedt in litt. This species is found in Asia, Comora Island; f. *javanica*, Java; f. *indica*, E. Indies, Pegu, Lahore, South America, Caracas, Brazil; var. *Wrightii* (A. Br.), N. America, W. Texas.—*N. oligospira*, A. Braun, in Monatsber. der Berl., Akad. 1885, p. 357, and in Fragmenti sine Monographic der Characeæ (ed. by O. Nordstedt), p. 67."

The above was received through A. Bennett, of Croydon, England.

Order MUSCI.

TRIBE DICRANEÆ.

DICRANELLA, C. M.

Small slender mosses growing on the ground or rocks. Leaves narrow, loosely areolate at their base, appressed when dry; perichætal leaves longer below. Thecæ (capsules) on erect slender peduncles, sometimes arched; operculum subulate-acuminate, peristome

of somewhat short teeth. Inflorescence dioecious, rarely monœcious.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. xii. 28.

The above generic description is wanting at page 725 of Syn. Queensl. Flora, and at page 65 of the Supplement.

D. tricuris, *C. M.* (*Angstrœmia Diobelon* in Linnæa xxxv. 616.)

Hab.: Queensland.—*F. v. M.*

D. Baileyana, *C. M.*

Hab.: Brisbane River.

HOLOMITRIUM, Brid.

H. Muelleri, *Hampe et C. M.* in Linnæa, 1870, 513.

Hab.: Queensland.—*F. v. M.*

LEUCOLOMA, Brid.

Slender cæspitose mosses, with narrow setaceous leaves, areolate with various formed cells, margins narrowly hyaline, the inner part obscurely papillose, wings conspicuous; perichætil leaves small. Capsule small on short erect stalk, operculum subulate, peristome-teeth broad.

L. clavinervis, *C. M.*

Hab.: Tropical Queensland.

L. Sieberi, *f. rigida*.

Hab.: Mount Archer.—*C. T. Musson*.

PÆCILOPHYLLUM, Mitt.

Tufted mosses growing on decayed wood, the stems more or less elongated, moderately divided. Leaves setaceo-acuminate, the cells near the margin elongate, narrow, hyaline, those of the middle of the leaf shorter and chlorophyllous, sometimes papillose; wings of the leaves conspicuous, perichætil ones convolute at the base. Capsule on elongated peduncles, oblong-cylindrical, operculum subulate; peristome of somewhat broad teeth.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. xii. 92.

The above generic description is wanting at page 725 of Syn. Queensl. Flora.

CAMPYLOPUS, Brid.

C. introflexus, *Hedw.*

Hab.: North Pine, Port Curtis, and Pimpama.

C. Woollsi, *C. M.*

Hab.: Nerang Creek.

TRIBE GRIMMIEÆ.

GLYPHOMITRIUM, Brid.

Mosses usually growing on rocks, seldom on trees, forming cushion-like tufts. Stems more or less elongated and densely leafy. Leaves subulate, canaliculate, firm, thickly nerved, crisp when dry, cells

obscure. Capsule on often somewhat short peduncles, oval-cylindrical; operculum subulate, peristome teeth nearly always unequally divided, sometimes the divisions thread-like; calyptra with smooth folds or sometimes dentate.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. xii. 105.

The above generic description is wanting at page 726 of Syn. Queensl. Flora.

TRIBE LEUCOBRYEÆ.

LEUCOBRYUM, Hampe.

L. candidum, *Schwægr.*

Hab.: Main Range.

TRIBE ORTHOTRICHEÆ.

MACROMITRIUM, Bridel.

M. Archeri, *Mitt.*, Tasm. Flora ii. 183. (*M. linearifolium*, C. M.)

Hab.: Mount Archer.—*C. T. Musson.*

M. caloblastum, *C. M.*

Hab.: On bark, Ithaca Creek.

TRIBE HYOPTERYGIEÆ.

HYOPTERYGIUM, Bridel.

H. (Lopidium) pinnatum, *Hampe.*

Hab.: Queensland.—*F. v. M.*

TRIBE SPLACHNEÆ.

AULACOPILUM.

A. Hodgkinsoniæ, *Hampe. et C. M.*

Hab.: Pine River.

TRIBE FUNARIEÆ.

EPHEMERUM, Hampe.

Very small mosses. Stems almost wanting, often springing from green confervoid filaments. Leaves narrow, the perichæatial ones much larger than the others. Capsule globose, immersed, delicate. Calyptra small, split on one side or quite lobed.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. xii. 239.

The above generic description is wanting at page 729 of Syn. Queensl. Flora.

FUNARIA, Schreb.

F. crispula, *J. H. et Wils.*

Hab.: Three-mile Scrub.

TRIBE BRYEÆ.

RHIZOGONIUM, Bridel.

R. Hookeri, *C. M.* (*R. mnioides*, Wils. Var. *contortum* et var. *lutescens*, J. Hook., Fl. Tasm. ii. 216. *R. Mossmannianum*, C. M.)

Hab.: Mount Mistake and Mary River.

BRYUM, Linn.**B. subcrispatulum**, *C. M.*

Hab. : Taylor's Range.

TRIBE HOOKERIEÆ.

DISTICHOPHYLLUM, Dozy et Molk.

Mostly small mosses found growing on decayed wood and rocks, with erect or ascending, sometimes procumbent, simple or branching stems. Leaves broad, acute or obtuse, with often a cartilaginous margin; cells short, rounded, hexagonal, pellucid. Capsule on a rather long peduncle, teeth of the peristome with an external unbroken or divided lamina, processes of the inner peristome keeled. Calyptra fringed at the base.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. xii. 393.

The above generic description is wanting at page 67 in Suppl. to Syn. Queensl. Flora.

TRIBE NECKEREÆ.

HEDWIGIA, Ehrhart.

(Name in honour of John Hedwig, a celebrated muscologist.)

Loosely tufted, creeping or suberect, branched, monœcious mosses. Leaves imbricate, nerveless, concave, with diaphanous erose apices. Cells small, quadrate. Fruit-stalks very short, terminal. Capsule incurved in the perichætium, globose; annulus and teeth none. Operculum plano-convex. Calyptra small, conic, glabrous or hairy.—New Zeal. Flora ii. 423. .

H. Jaratzkæ, *C. M.*, Rev. Bryol, 1876, 3.

Hab. : Queensland.—*F. v. M.*

SPLACHNOBRYUM.**S. Baileyi**, *Brotherus*.

Hab. : On brickwork, Brisbane.

PTEROBRYUM, Hornsch.

Mosses usually found growing on the stems of trees; the branches elongated, fertile, simple in the lower part, and stipiform; in the upper part divided, branched, and forming a pinnate or tree-like frond, or sometimes the branchlets pinnate throughout their whole length. Leaves smooth or plicate, everywhere equal or compressed, with narrow cells. Capsule immersed or exserted; peristome small, depressed; the teeth cohering with each other and with the rudiments of the inner peristome. Calyptra small and entire.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. xii. p. 19.

The above generic description is wanting at page 732 of Syn. Queensl. Flora, and page 68 of the Supplement.

P. acutum, *Mitt.*

Hab. : Scrubs near Brisbane.

METECRIUM, *Brid.***M. Baileyi**, *Brotherus.*

Hab.: Rockingham Bay.—*K. Broadbent.*

NECKERA, *Hedw.***N. hymenodonta**, *C. M.* (*N. pennata*, Wil.)

Hab.: Mount Mistake.

POROTRICHUM, *Bridel.*

Mosses found growing on the ground, rocks, and at the roots of trees. Primary stems rhizomatiform, branch arising from a sparsely leaved stipe, bearing branchlets on the upper part, and sofrondose; these branchlets are sometimes flagelliform and proliferous. Leaves everywhere equal or compressed and unsymmetrical, 1-nerved or seldom 2-nerved; perichaetial leaves small, areolate, with cells which are narrow, sometimes shortened; processes inside of the peristome, perforated on the keel, with cilia intervening, and resting when present on the membrane. Calyptra small.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. xii. 458.

The above generic description is wanting at page 733 of Syn. Queensl. Flora.

P. Schlosseri, *C. M.*

Hab.: Gympie.

TRIBE STEREODONTEÆ.

ENTODON, *C. M.***E. Toowoombæ**, *C. M.*

Hab.: Queensland.—*F. v. M.*

ISOPTERYGIUM, *Mitt.*

Stems procumbent, with fasciculate branches of unequal length. Leaves compressed, distichous, 3 upper series scarcely obvious, the 3 lower absent, very shortly 2-nerved. Cells narrow, smooth. Capsule inclined or horizontal, oblong, the hairs of the inner peristome united.—*Mitt.*, South Amer. Moss in Journ. Linn. Soc. xii. p. 21.

The above generic description is wanting at page 734 of Syn. Queensl. Flora.

I. Baileyanum, *C. M.*

Hab.: Kedron Brook and Port Curtis.

I. robustum, *Broth.* (sp. nov.)

Hab.: On rock-work, Bowen Park. Allied to *I. Teysmanni*, of Java, says Dr. Brotherus.

EUTROPOTHECIUM, *Mitt.*

Mosses growing on the earth or wood, with feather-like stems, the leaves glossy, for the most part falcate-secund. Capsule or theca with the mouth at length gaping.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. xii. 510.

The above generic description is wanting at page 734 of Syn. Queensl. Flora.

E. reticulatum, *Dozy et Molk.*

Hab.: On rock-work, Bowen Park.

TRIBE HYPNEÆ.

FABRONIA, Raddi.**F. Scottiæ**, *C. M.*

Hab.: On rock-work, Bowen Park.

ANACAMPTODON, Bridel.

(Name alluding to the teeth of peristome being reflexed.)

Slightly more robust than *Fabronia*, lax or dense, implexo-cæspitose, dark-green, of soft texture. Leaves ovate-lanceolate, plano-concave, full of chlorophyl, the costa lax, thin, terminating beyond the middle, margin entire, cell network somewhat narrow rhomboidal. Flowers monœcious. Perichætium few-leaved, covering the oblong subpilose vaginulas. Calyptra whitish, produced beneath the operculum. Capsule oval, oblong, with a rather thick neck, constricted beneath the dried-up mouth, somewhat solid. Operculum continued from a convexo-conical base into a rather short and straight or somewhat long oblique beak. Annulus wanting. Peristome of *Orthotrichum*, double; external teeth 16, lanceolate, entire, approximate in pairs, distantly articulate, marked by a straight divisional line, pale, reflexed when dry; internal teeth 16, filiform. Spores minute, greenish-yellow.—*W. P. Schimper*, Syn. Mus. Eur. pp. 585-586.

A. Fortunel, *Mitt.*Hab.: Mount Perry.—*J. Keys*.**HYPNODENDRON**, C. Muell.

The primary stems creeping rhizomatiform, terminating in erect branches, simple below, decomposed and frond-like above. Leaves at the middle of the fronds equal or unequal and compressed. Theca or capsule inclinate or horizontal, plicate. Peristome perfect.—*Mitt.*, South Amer. Mosses in xii. Journ. Linn. Soc. p. 23.

The above generic description is wanting at page 735 of the Syn. Queensl. Flora, and page 69 of Supplement.

H. eflagellare, *Agstr.*

Hab.: Brisbane scrubs.

HYPNUM, Dill., Hedw.

Mosses found on rocks, trees, or on the ground, with shining or somewhat dull, smooth, plicate leaves; cells elongate-areolate, with narrow walls. Peduncles often rough and somewhat thick. Operculum rigid conical or rostrate.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. xii. 545.

The above description is wanting at page 69 of Supp. to Syn. Queensl. Flora.

H. microflagellare, *C. M.*

Hab.: Brisbane scrubs,

THUIDIUM, Schimp.

Mosses found on the ground, amongst rocks, and about trees. Of tender habit, with elegantly bipinnately branched stems. Leaves of a deep or yellowish-green colour, all those of the stem remote and more or less long, acuminate, those of the branchlets ovate, oblong, somewhat obtuse, frequently concave and imbricate, sometimes complanate; perichæatial leaves with the cells narrow, pellucid. Theca or capsule cylindrical, oblong, or oval.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. p. 572.

The above description is wanting at page 735 of Syn. Queensl. Flora, and page 69 of the Supplement.

TRIBE SKITOPHYLLÆ.

FISSIDENS, Brid.**F. undato-decurrens**, *C. M.*

Hab.: Brisbane scrubs.

RHYNCHOSTEGIUM, Schimper.

Minute or moderately large mosses growing on the ground or over rocks, with spreading branches and branchlets, scantily rooting. Leaves patent on all sides or appressed to the stem, those of the stem and branches similar, lanceolate-acuminate, ovate and oblong, having no midrib or one very thin and simple, of firm consistency, shining, seldom opaque; areoles narrowly rhomboid, making a slender network; primordial utricle distinct. Flowers monœcious, seldom diœcious. Operculum bent or horizontal, ovate; capsule with a subulate beak; peduncle smooth or very seldom rough. The somewhat large teeth of the peristome lamellate, processes subentire, ciliola filiform.—Syn. Musc. Eur. p. 678.

The above generic description is wanting at page 735 of Syn. Queensl. Flora.

TRIBE POLYTRICHÆ.

POLYTRICHADELPHUS, *C. Muell.*

Dwarfish or tall mosses, growing on the ground. Stems nearly simple, forked, or nearly fasciculate, and attains tree-like form. Leaves rigid, canaliculate, with a wing bearing nerve on the inner side. Capsule on somewhat thick elongated peduncles, apex of calyptra setose or naked.—*Mitt.*, South Amer. Mosses in Journ. Linn. Soc. xii. p. 607.

The above description is wanting at page 735 of Syn. Queensl. Flora.

Order HEPATICÆ.

ACROLEJEUNEA.**A. Wildii**, *Stephn.*

Hab.: Pimpama.—*C. Wild.*

ANTHOCEROS, Micheli.**A. lævis**, Linn.Hab.: Queensland.—*F. v. M.***CEPHALOZIELLA**, Spruce.

Very small or minute plants, creeping over mosses or other hepatics. Stem for small plant stout with the interior cortical cells all of the same shape, at the base and at the sides subrhizomatous, but without flagelli; leaf-bearing branches in almost all terminal (postici), exceptionally in a few and normally in a very few lateral. Lower leaves succubous, those above somewhat spreading and transverse, rarely exceeding the breadth of the stem, very often cuneate, half to a further extent bifid, carinate, with the segments either subcomplicate, partly folded one within the other, or diverging, altogether entire or subdenticulate, seldom spinulose; leaf-cells small or minute diam. $\frac{1}{10}$ – $\frac{1}{70}$ mm., subquadrate leaflet (foliola) where present small, entire and bifid, often in one and the same species; at one time present, at another absent. Female flowers very often terminal on the stem itself, in other species cladogenous or variously situated. Bracts somewhat large, tristichous, bilobed, denticulate on the lobes and sides, or with little spines, the latter alone very often highly connate with the one behind and forming a cup. Perianth generally narrow, sharply prismatic, the keels seldom only three, usually three, four or five (but rarely six) in the same species; mouth denticulate, rarely unarmed. Capsule oblong, globose. Androecium occupying a part of the stem itself or of the larger branch, situated in the middle of it or apical, the leafy branch which follows it not reduced (smaller), rarely reduced to an amentiform branch.—*Trans. Bot. Soc. Edinb.* xv. 399, 1885.

C. Brotheri, *Stephn.***CHILOSCYPHUS**, Corda.**C. argutus**, *Nees.*

Hab.: Ithaca Creek.

FIMBRIARIA, *Nees.***F. longibarbata**, *Stephn.*Hab.: Queensland.—*F. v. M.***F. Drummondii**, *Tayl.*

Hab.: On damp earth, Brisbane River.

FOSSOMBRONIA, Raddi.

Fronds prostrate, creeping, lobed pinnately; lobes succubous, distichous, quadrate, 3 to 5-lobed, flaccid. Stipules none. Fruit terminal, or lateral by the growth of the stem. Involucre of subulate leaves, adnate to the perianth, which is campanulate; mouth large,

lobed. Calyptra pyriform. Capsule on a short fruit-stalk, globose, irregularly 4-valved; elaters short with 2 or 3 spiral fibres. Antheridia naked on the under surface.—New Zeal. Flora.

***F. papillata*, Stephn.**

Hab.: On side of hills, Petrie terrace.

FRULLANIA, Raddi.

***F. serrata*, Gottsch.**

Hab.: Queensland.—*F. v. M.*

***F. rubella*, Gottsch.**

Hab.: Queensland.—*F. v. M.*

***F. spinifera*, Tayl.**

Hab.: Brisbane River.

***F. monocera*, Tayl.**

Hab.: Taylor's Range, on bark.

***F. fugax*, Tayl.**

Hab.:

***F. squarrosa*, Nees.**

Hab.: On sandy soil, Brisbane River.

***F. seriata*, Gottsch.**

Hab.: On wood, Brisbane River.

***F. Wildii*, Stephn.**

Hab.: On bark, Brisbane River.—*C. Wild.*

JUNGERMANNIA, Linn.

Stems prostrate, creeping. Leaves succubous, distichous, entire or lobed. Stipules usually present. Fruit terminal on the main stem or on a lateral branch. Involucral leaves free. Perianth tubular, angular; mouth toothed or lacinate; calyptra usually included. Capsule ovoid or globose, on a slender fruit-stalk; elaters with 2 spiral fibres. Antheridia in the bases of inflated perigonial leaves.—*Hook.*, New Zeal. Flora ii. 520.

***J. montana*, Gottsch.**

Hab.: Queensland.—*F. v. M.*

LEJEUNIA, Maria Libert.

***L. tumida*, Mitt.**

Hab.: Queensland.—*F. v. M.*

***L. trichomanes*, Gottsch.**

Hab.: Queensland.—*F. v. M.*

LEPIDOZIA, Nees.

Stems creeping, often very minute and slender, throwing out rootlets from the ventral surface. Leaves incubous, obscurely distichous, 4-toothed or 4-cleft. Stipules present. Fruit terminal

(and antheridia) on proper branches from the underside of the stem. Involucral leaves numerous, short, broad-toothed. Perianth elongate, 3-angled, the face hollow, mouth toothed. Calyptra membranous. Capsule on slender fruit-stalks, globose; elaters with 2 spiral fibres. Antheridia solitary in the bases of conduplicate, 2 to 3-cleft, perigonial leaves.—*Hook.*, New Zeal. Flora ii. 320.

L. capillaris, *Lindenb.*

Hab.: Logan River.

L. patentissima, *Hook. f. et Tayl.*, Flora Antaret. i. 158 t. 65 f. 5.

Hab.: Queensland.—*F. v. M.*

LOPHOCOLEA, *Nees.*

Stems prostrate, creeping. Leaves succubous, distichous, flaccid, decurrent at the base, 2-multifid. Stipules 2 to 4-cleft. Fruit terminal. Involucre of 2 to 4 large leaves. Perianth tubular below, 3-gonous above; lobes toothed and crested. Calyptra short, membranous, rupturing transversely at the base or irregularly at the apex. Capsule on a slender fruit-stalk, oblong; elaters with 2 spiral fibres. Antheridia in the saccate dorsal bases of perigonial leaves, which resemble the cauline.—*New Zeal. Flora.*

L. heterophylloides, *Nees.*

Hab.: Near Brisbane, on damp earth.

LUNULARIA, *Mich.*

L. vulgaris, *Mich.*

Hab.: On rocks, Brisbane River.

MADOTHECA, *Du Mort.*

M. Stangeri, *Gottsch.*

Hab.: Main Range.

MASTIGOBRYUM, *Nees.*

Stems creeping and rooting or ascending, large, sparingly branched, giving off numerous filiform leafless shoots. Leaves distichous, incubous, usually 3-fid at the apex; stipules toothed, often connate, with the leaves above them. Fruit (and antheridia) terminal, on short proper branches, arising from the bracts and stipules. Involucral leaves small, narrow, incised at the apex. Perianth elongate, 3-angular; mouth 3-toothed. Calyptra membranous. Capsule globose, on a slender fruit-stalk; elaters with 2 spiral fibres. Antheridia 2 in the axil of each perigonial leaf.—*New Zeal. Flora.*

M. Mittenii, *Stephn.*

Hab.: Taylor's Range.

NOTEROCLADA, *Tayl.*

Fronds appressed to the ground, creeping, rooting, stout, forked, pinnately lobed; lobes broad, sessile, decurrent, soft, quite entire.

Stipules none. Fruit lateral or terminal. Involucre confluent with the perianth, erect, cylindrical or compressed; mouth somewhat 2 or 4-lobed. Capsule subglobose, on a slender fruit-stalk, 4-valved or bursting irregularly; elaters short, with 2 (?) spiral fibres. Antheridia immersed in the back of the stem.—New Zeal. Flora.

N. confluens, *Tayl.*

Hab. : On damp earth, Brisbane River.

PHRAGMICOMA, Du Mort.

P. plicatiscypha, *Hook. et Tayl.*

Hab. : Queensland.—*F. v. M.*

P. Keppelina, *Gottsch.*

Hab. : Queensland.—*F. v. M.*

PHYSIOTIUM, Nees.

P. articulatum, *Lindenb.*

Hab. : Queensland.—*F. v. M.*

P. Muelleri, *Gottsch.*

Hab. : Queensland.—*F. v. M.*

PLAGIOCHASMA, Lehm. et Lindenb.

Frond short, thick, rigid. Inflorescence monœcious (?). Fertile receptacles stalked, capitate, 2 to 4-lobed; lobes small, ascending. Involucres 4, large, erect, 1-capsuled, concealing the lobes, ovoid, 2-valved. Perianth none, calyptra fugacious. Capsule almost sessile, horizontal, globose, splitting irregularly; elaters moderately long; spores enclosed in a transparent wrinkled membrane. Antheridia immersed in sessile disks.—*Hook.*, New Zeal. Flora ii. 544.

P. australe, *Nees*, New Zeal. Flora.

Hab. : Queensland.—*F. v. M.*

PLAGIOCHILA, Nees et Montagne.

(Referring to the obliquely tipped leaves.)

Stems from a creeping rhizome, erect, ascending, or creeping, often large and rigid. Leaves distichous, succubous, dorsal margin decurrent and reflexed, often obliquely. Stipules in some species wanting. Fruit terminal or lateral. Involucral leaves 2, larger than the cauline. Perianth compressed at right angles to the insertion of the leaves; mouth truncate, entire or toothed. Calyptra membranous. Capsule on a long or short fruit-stalk, ovoid; elaters with 2 spiral fibres. Antheridia covered by small, imbricated, ventricose, perigonial leaves.—*Hook.*, New Zeal. Flora ii. 504.

P. Lyalli, *Mitt.*, New Zeal. Flora.

Hab. : Queensland.—*F. v. M.*

PTYCHANTHUS.

P. squarrosus, *Mont.*

Hab. : Rockingham Bay.—*K. Broadbent.*

RADULA, Nees.

R. reflexa, *N. et M.*

Hab. : Queensland.—*F. v. M.*

R. Mittenii, *Stephn.*

Hab. : Queensland.—*F. v. M.*

R. acutiloba, *Stephn.*

Hab. : On bark near Brisbane.

REBOULIA, Nees.

Fruondose, growing on rocks or earth, with the habit of *Marchantia*; midrib strong, broad. Female receptacle peduncled, flat, conical, or hemispherical, 1 to 6-lobed, almost to the middle; lobes thick, their margins forming a 2-valved involucre containing 1 capsule. Perianth none. Calyptra ovoid, soon rupturing, leaving a cup as the base of the capsule. Capsule exserted, subglobose, membranous, lacerate or suboperculate; elaters with 2 spirals; spores tuberculated. Male receptacle sessile, discoid.—New Zeal. Flora.

R. hemisphærica, *Raddi.*

Hab. : Brisbane River banks, on rocks.

RICCIA, Micheli.

R. multifida, *Stephn.*

Hab. : Queensland.—*F. v. M.*

R. muscicola, *Stephn.*

Hab. : Queensland.—*F. v. M.*

Order LICHENES.

TRIBE COLLEMEL.

COLLEMA, Ach.

C. furvum, *Ach.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

C. leucocarpum, *Tayl.* (*Leptogium glaucophthalmum*, *Nyl.*)

Hab. : Mount Mistake.—*J. F. Shirley.*

LEPTOGIUM, Ach.

L. tremelloides, var. **pichneum** (?)

Hab. : Helidon.—*J. F. Shirley.*

L. hypotrachyum, *J. Muell.*

Hab. : Queensland — *F. v. M.*, Vict. Nat., Oct. 1887.

TRIBE CALICIEI.

CALICIUM, Ach.

(So named from the cup-like apothecia.)

Thallus granular, powdery, or evanescent, very rarely scaly or obsolete. Apothecia black, stipitate, rarely subsessile, in turbinate capitula, globose; spores brown or blackish, simple or septate. Minute often microscopic Lichens, found on rocks and old wood.—New Zeal. Flora vol. ii. 558.

C. hyperellum, var. validius, *C. Knight*. Thallus pale yellowish, obscured by the dark colour of the dead wood below, very thinly leprose, spreading plainly round the apothecia, but indistinct between them. Apothecia following the lines of the slightly fissured wood, shortly stipitate, 2-4 mm., dark brown, almost black; stipes cylindrical; apothecia cup-shaped, coated with a dusty mass of spores. Spores minute, $0.005 \times 0.0025-0.003$ mm., bilocular, slightly contracted at the septum; loculi hemispherical or nearly so.—*J. F. Shirley's Paper to Roy. Soc. Qd.*, 10th Feb. 1888.

Hab.: On dead wood, Brisbane Racecourse, Cabbage-tree Creek, and Redbank Plains.—*J. F. Shirley*.

TRIBE CLADONIEI.

CLADONIA, Hoffm.

C. fimbriata, *Schærer*.

Hab.: Stradbroke Island—*Bail.*; and Main Range—*Hartmann*.

C. fimbriata, var. radiata, *Fries*.

Hab.: Mount Mistake.

C. lepidula, *Krempelhuber*.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

C. pityrea, *Flørke*.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

TRIBE STEREOCAULEI.

STEREOCAULON, Schreb.

S. arbascula, *Nyl.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

S. nanum, *Ach.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

TRIBE SIPHULEI.

EUMITRIA, Stirton.

E. elegans, *Stirton* = *USNEA ELEGANS*, *Stirton*.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

TRIBE RAMALINEI.

RAMALINA, Ach.

R. fraxinea, *Ach.*

Hab.: Queensland.—*F. v. M.* Vict. Nat., Oct. 1887.

R. geniculata, *Tayl.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

R. gracilis, *Nyl.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

R. pusilla, *Le Prev.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

TRIBE CETRARIEI.

PLATYSMA, Hoffm.

P. eriophyllum, *C. K.* (sp. nov.) Thallus simple, with dark-coloured medulla and white woolly surfaces, 1-1½ inch in greatest width; surface wrinkled, margins almost simple, clasping a twig by the posterior and lateral margins, and with the anterior margin free, horizontal, and bearing the apothecia only along its edge. Apothecia from 1.5 to 2 mm. in diameter, disk dull-red to black, flat; margin truly thalline with a beautiful white ray of the woolly filaments. Asci ovate-cylindrical with 2-seriate contents .04 × .015 mm., or narrow-cylindrical and spores 1-seriate. Spores ovate or globular, simple and colourless, .007 × .005 mm. Paraphyses with iodine, dull-brown, matted, granular.—*J. F. Shirley's* Paper to Roy. Soc. Qd., 10th Feb., 1888.

Hab.: Mount Mistake.—*J. F. Shirley.*

TRIBE PETTIGERIEI.

NEPHROMA, Ach.**N. tropicum**, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

TRIBE PARMELIEI.

STICTA, Ach.**S. flavissima**, *J. Muell.*

Hab.: Main Range.—*Hartmann.*

S. glaucescens, *Krempelt.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

S. dissimulata, *Nyl.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

S. flicina, *Ach.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

S. dissimilis, *Nyl.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

S. aurata, var. **pallido-glaucescens**, *C. Knight.*

Hab.: Mount Mistake.—*J. F. Shirley.*

S. subvariabilis, *Nyl.*

Hab.: Mount Mistake.—*J. F. Shirley.*

S. Billardieri, *Delise*.Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. dichotomoides**, *Nyl.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. fragillissima**, *J. Muell.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. hypoleuca**, *J. Muell.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. Karstenii**, *J. Muell.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. Sayeri**, *J. Muell.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. sulphurea**, *Schærer.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**STICTINA**, *Nyl.***S. cinnamonea**, *Rich.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. esorediata**, *J. Muell.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. limbata**, *Sm.*Hab.: Mount Mistake.—*J. F. Shirley.***S. macrophylla**, *Nyl.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**S. Montagneana**, *Nyl.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**RICASOLIA**, De Not.**R. crenulata**, *Nyl.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.**R. Hartmannii**, *J. Muell.*Hab.: Mount Mistake.—*J. F. Shirley.***R. hypoleuca**, *J. Muell.*Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

R. plurimiseptata, *C. K.* (sp. nov.) Thallus pale-grey, with smooth upper surface sparsely dotted over with small black spermatogonia; lobes few, rounded, with sinuate margins. Apothecia shortly pedicellate, at first resembling those of *Parmelia mundata*, afterwards with incurved laterally flattened margins, becoming boat-shaped. The under surface of an apothecium thus exhibited is covered with exceedingly fine closely-set granules. Disk dull dark-red. Asci clavate-cylindrical, .08-.01 mm. Spores overlapping and massed, acicular, colourless, 12-15 septate. Paraphyses clavate, separating, tips very dark-brown (J).—*J. F. Shirley's* Paper to Roy. Soc. Qd., 10th Feb. 1888.

Hab.: Mount Mistake.—*J. F. Shirley.*

R. sublævis, Nyl.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

PARMELIA, Ach.**P. corollina, Ach.**

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. eciliata, Nyl.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. hospitans, J. Muell.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. insinuata, Nyl.

Hab. : Mistake.—*J. F. Shirley*.

P. Mongestii, Schærer.

Hab. : Helidon.—*J. F. Shirley*.

P. ochroleuca, J. Muell.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. pruinata, J. Muell.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. rutidota, Tayl.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. saxatilis, Ach.

Hab. : Mount Mistake.—*J. F. Shirley*.

P. sulphurata, Nees.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. urceolata, J. Muell.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. virens, J. Muell.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

PHYSICIA, Nyl.**P. speciosa, var. hypoleuca, Ach.**

Hab. : Helidon.—*J. F. Shirley*.

TRIBE GYROPHOREI.**PYXINE, Fries.****P. retirugella, Nyl.**

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

TRIBE LECANOREI.**PANNARIA, Delise.**

P. flexuosa, C. K. (sp. nov.) Hypothallus black, to which the brownish grey or grey-drab thalline lobes are closely appressed; finely and closely linear-lobate with forked terminations; linear-

lobate seldom more than 2-3 mm. in length. Apothecia 6-1 mm. broad, with vermilion-coloured disks and pale yellow-grey excipula. Thecae cylindrical, deep-blue with iodine. Paraphyses golden-yellow with iodine, matted, tips agglutinated. Spores globular, oval or oblong, sometimes curved, simple, pellucid, with thick epispore, $0036-005 \times 003-0035$ mm. (immature).—*J. F. Shirley's* Paper to Roy. Soc. Qd., 10th Feb. 1888.

Hab.: Mount Perry.—*J. Keys.*

P. isidoides, J. Muell.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. integrata, Nyl.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. Mariana, J. Muell.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

PSOROMA, Fries.

Thallus scaly, cellular; granules large, distinct, enclosed in a cellular envelope. Apothecia usually scattered; border crenate; paraphyses separate; spores 8, large, simple. Spermatogonia and arthrospores.—*New Zeal. Flora.*

P. dispersum, Stirton.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. Karstenii, J. Muell. et Agardh.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. sphinctrinum, Nyl. = PANNARIA SOREDIATA, C. Knight.

PATELLARIA.

(Latin *patella*, a pan, dish, or plate, from shape of apothecia.)

P. alutacea, J. Muell.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. australiensis, J. Muell.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. furfurella, J. Muell.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. leucoblephara, J. Muell.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. subproposita, J. Muell.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. ventricosa, J. Muell.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

PLACODIUM, DC.

Thallus radiating, rarely laciniate. Apothecia with a thalline border, rarely without one; paraphyses separate; spores 8, ellipsoid,

2-locular, rarely simple. Spermatogonia immersed, orifice coloured; spermatia shortly cylindric, slender, attached to arthrospores.—New Zeal. Flora ii. 577.

P. cirrhorhous, *Ach.*; *f. thallus leprosis*, C. Knight.

Hab.: Mount Perry.—*J. Keys.*

P. plurilocellare, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

AMPHILOMA, Fries.

Thallus soft, membranous; surface powdery. Granules with a cellular coat. Apothecia reddish, border powdery.—New Zeal. Flora.

A. gossypinum, *Nyl.*

A. murorum, *Kærber.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

A. glaucescens, *Rev. F. R. M. Wilson*, Vict. Nat., June 1888.

Hab.: On bark, Tambourine Mountain.—*J. F. Shirley.*

RINODINA.

A division of the *Lecanora*, in which the spores are always of a brown colour.

R. thiomela, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1877.

COCCOCARPIA.

C. aurantica, *Mont.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

C. pellita, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

LECANORA, Nyl.

L. albella, *Ach.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. atra, *Huds.*

Hab.: Helidon.—*J. F. Shirley.*

L. continua, *C. K.*

Hab.: Taylor's Range.—*J. F. Shirley.*

L. conyzæa, *Nyl.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. effusa, *Th. Fries.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. plumosa, *Fries.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. sorediifera, Fée.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. sordida, Fries.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. subfusca, var. chlarona, Ach.

Hab.: Brisbane River.—*J. F. Shirley*.

L. subfusca, var. collocarpa, f. saxicola.

Hab.: Taylor's Range.—*J. F. Shirley*.

L. queenslandiæ, C. K. (sp. nov.) Thallus a dirty-white or faded yellow, granular, in small rounded granules resembling the verrucæ of *Pertusaria*, the granules separated by fine areolate fissures; surface of thallus irregular, following the roughened surface of the bark below. Apothecia raised, very numerous in the central portion of thallus, 7-9 mm. in diameter; disk waxy in appearance and pale-red, margin moniliform from the earliest stages, ring-like, thalline. Spores simple, pellucid, contents golden-yellow with iodine, oval, 005-008 × 002-0035 mm.—*J. F. Shirley's* Paper to Roy. Soc. Qd., 10th Feb. 1888.

Hab.: Mount Perry, on bark.—*J. Keys*.

CALLOPISMA, Notaris.

C. aurantiacum, Nyl.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

PERTUSARIA, DC.

P. pustulata, Duby.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. leutescens, Krempelhuber.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. melaleuca, Duby.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. trypetheliiformis, Nyl.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. xanthoplaca, J. Muell.

Hab.: Queensland.—*F. v. M.*

P. leucostigma, J. Muell.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. dermatodes, Nyl.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. sorediata.

Hab.: On rocks, Sandgate.—*Bail*.

P. gibberosa, J. Muell.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. Hartmanni, J. Muell.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. pertusella, J. Muell.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. subflavens, J. Muell.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. leioplacoides, J. Muell.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

THELOTREMA, Ach.

T. expansum, C. K. (sp. nov.) Thallus pale-brown, smooth, evenly spread, generally well defined by a narrow, almost black, hypothalline border. Apothecia showing as punctures through the thallus, with thalline and true excipula, latter rupture and curl and become irregular; disk dark-brown in the centre and darker at margins, 1.5 mm. in diameter. Thecæ clavate-cylindrical. Spores oblong or narrowly oval, occasionally ovate-fusiform, somewhat pointed at each end, brown, 5-7 septate; loculi narrow-oval or oblong, .018-.025 × .0036-.005 mm. Paraphyses capillary, discrete, cloudy yellow-brown with iodine. Hymenial gelatine with iodine remaining brown.

Hab.: On bark, Hill End, South Brisbane.—*J. F. Shirley.*

ARTHOPYRENIA.**A. cinerea-pruinosa, Krempel.**

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

A. gravestella, J. Muell.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

CLATHROPORINA.**C. olivacea, J. Muell.**

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

C. robusta, J. Muell.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

OCELLULARIA.**O. Bonplandi, Spreng.**

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

O. gyrostromoides, J. Muell.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

O. leucotyla, Nyl.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

LECIDEA, Ach.**L. aurigera, Stirton.**

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. bacidioides, J. Muell.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. confluens, Fries.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. contraria, J. Muell. = L. QUADRILOCULARIS, C. K., part iii.
Contrib. to Queensl. Flora.

Dr. C. Knight says that his name must lapse, as Nylander had applied it to another species.

L. exigua, Ch.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. (Bombyliospora) fusco-lutea.

Hab.: Main Range.—*Hartmann*.

L. ludibunda, J. Muell.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. meiospora, Nyl.

Hab.: Brisbane River. This is often found on the hard bare earth of ant-hills.

L. mutabilis, Fée.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. piperis, Spreng.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. speirea, Ach.

Hab.: On rocks, Hill End, South Brisbane.—*J. F. Shirley*.

L. subsimilis, Nyl.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. (Biatorinopsis) lutea, J. Muell.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. (Blastonia) ferruginea, Krempel.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. (Psora) brevisulcata, Nyl.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. (Psora) subhyalina, Stirton.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

L. (Buellia) parasema, Th. Fries.

Hab.: Sandgate.—*Bailey*. Taylor's Range.—*J. F. Shirley*.

L. conspersa, Fée.

F. v. M. in litt. *Bailey*.

HETEROTHECIUM, Tuck.

Margin of apothecia lighter than disk or none; spores brown.

H. Sayeri, J. Muell.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

TRIBE GRAPHIDEI.

GRAPHIS, Ach.

G. Parmelliorum, C. K. (sp. nov.) Parasitic on *Parmelia tinctorum* as rounded brownish spots scattered over the upper surface of the thallus, generally separate, but at times marginal and confluent, slightly raised above the surface of its host, 2-3 mm. in diameter. The lirellæ can be observed on these spots as radiating dark-brown lines, not extending quite to the centre of the parasitic thallus, or reaching its circumference, 1 mm. in length, with slightly raised thalline excipula, and very fine thallamial line. The surrounding thallus paler near the lirella than elsewhere. Spores non-det.—*J. F. Shirley's* Paper to Roy. Soc. Qd., 10th Feb. 1888.

Hab. : On *Parmelia*, Rosewood Scrub.—*J. F. Shirley*.

G. assimilis, Nyl.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. crassilabra, J. Muell.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. duplicata, Ach.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. propinqua, J. Muell.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. rimulosa, Mont.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. Sayeri, J. Muell.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. scripta, Nyl.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. striatula, Nyl.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. subtenella, J. Muell.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. tenella, Ach.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. vermifera, J. Muell.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

OPEGRAPHA, Ach.

O. Bonplandi, Fée.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

O. inallescens, J. Muell.

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

MELANOGRAPHIS.

M. leucinia, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

GRAPHINA.

G. brachyspora, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. Hartmanni, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

G. polyclades, *Krempel.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

CENOGONIUM, Ehrenb.

C. rigidulum, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

DICHONEMA.

D. irpicinum, *Nyl.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

LEPTOTREMA.

L. fallax, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

PYRENULA.

P. defossa, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. convexa, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

P. subvariolosa, *C.K.* (Under *Verrucaria* in first Supplement.)

Hab. : Mount Perry.—*J. Keys.*

PSEUDOPYRENULA.

P. sulphurescens, *J. Muell.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

CHIODECTON, *Ach.*

C. effusum, *Fée.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

C. rubro-cinctum, *Nyl.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

C. sublævigatum, *Krempel.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

GLYPHIS, *Ach.*

G. favulosa, *Ach.*

Hab. : Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

MELASPILEA, Nyl.

Thallus excessively thin or obsolete. Apothecia as in *Arthonia*, black, superficial; paraphyses distinct; spores 8, usually colourless, 1-septate; spermatia straight.—New Zeal. Flora.

M. opegraphoides, Nyl.

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

ARTHONIA, Ach.**A. delicatula**, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

A. gracilentia, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

A. gracillima, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

A. Thozetiana, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

VERRUCARIA, Pers.**V. raphispora**, *C. K.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

V. trichospora, *C. K.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

V. zostra, *C. K.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

ANTHRACOTHECIUM.**A. desquamans**, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

A. Doleschalli, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

A. macrosporum, *Hepp.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

A. strigosporum, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

TREMOTYLIIUM.**T. australianum**, *J. Muell.*

Hab.: Queensland.—*F. v. M.*, Vict. Nat., Oct. 1887.

ABNORMAL LICHENS.**LEPRARIA**, Ach.**L. candelaria**.

Hab.: Mount Perry.—*J. Keys.*

Order FUNGI.

The Queensland plants of this order are here arranged in accordance with the classification used by that excellent mycologist M. C. Cooke, M.A., in his enumeration of the Australian species in vols. ix., x., xi., and xii. of the *Grevillea*, a work not completed when the author's Synopsis of the Queensland Flora was printed.

SUBORDER I.—HYMENOMYCETES.

TRIBE I. AGARICINI.—*Genera*: Agaricus, Coprinus, Cortinarius, Paxillus, Hygrophorus, Lactarius, Russula, Cantharellus, Marasmius, Lentinus, Panus, Trogia, Xerotus, Schizophyllum, Lenzites.

TRIBE II. POLYPOREI.—*Genera*: Boletus, Strobilomyces, Polyporus, Fomes, Polystictus, Poria, Trametes, Dædalea, Hexagona, Laschia, Merulius.

TRIBE III. HYDNEI.—*Genera*: Hydnum, Irpex, Sistotrema, Radulum, Phlebia, Grandinia.

TRIBE IV. THELEPHOREI.—*Genera*: Craterellus, Cladoderis, Lachnocladium, Thelephora, Stereum, Auricularia, Dictyonema, Hymenochæte, Peniophora, Corticium, Hypochnus, Cyphella.

TRIBE V. CLAVARIEI.—*Genera*: Clavaria, Calocera.

TRIBE VI. TREMELLINI.—*Genera*: Tremella, Hirneola, Guepinia, Dacrymyces.

SUBORDER II.—GASTEROMYCETES.

TRIBE I. PHALLOIDEI.—*Genera*: Dictyophora, Phallus, Cynophallus, Clathrus, Ileodictyon, Aserœ.

TRIBE II. LYCOPERDACEI.—*Genera*: Podaxon, Phellorinia, Mitremyces, Tulostoma, Mesophellia, Diploderma, Geaster, Bovista, Lycoperdon, Mycenastrum, Polysaccum, Scleroderma.

TRIBE III. NIDULARIACEI.—*Genera*: Cyathus, Crucibulum.

TRIBE IV. HYPOGÆI.—*Genera*: Hydningium, Hymenogaster.

SUBORDER III.—MYXOMYCETES.

TRIBE I. CALCAREÆ.—*Genera*: Physarum, Æthaliu, Spumaria, Tilmadoche, Chondrioderma, Didymium.

TRIBE II. AMAUROCHÆTEÆ.—*Genus*: Stemonitis.

TRIBE III. ANEMEE.—*Genera*: Tubulina, Clathroptychium.

TRIBE IV. ARCYRIACEÆ.—*Genus*: Arcyria.

TRIBE V. TRICHIACEÆ.—*Genus*: Hemiarcyria.

SUBORDER IV.—ÆCIDIOMYCETES.

TRIBE I. PUCCINIÆ.—*Genera*: *Ræstelia*, *Æcidium*, *Cronartium*, *Puccinia*, *Cerebella*, *Uromyces*, *Melampsora*, *Uredo*.

TRIBE II. USTILAGINEI.—*Genera*: *Ustilago*, *Sorosporium*, *Thecaphora*, *Tilletia*, *Graphiola*.

SUBORDER V.—DISCOMYCETES.

TRIBE I. HELVELLACEI.—*Genera*: *Leotia*, *Geoglossum*, *Calloria*, *Peziza*, *Helotium*, *Chlorosplenium*, *Phillipsia*.

TRIBE II. BULGARIACEI.—*Genus*: *Ascobolus*.

TRIBE III. PATELLARIACEI.—*Genera*: *Cenangium*, *Tympanis*.

TRIBE IV. STICTICI.—*Genus*: *Stictis*.

TRIBE V. HYSTERIACEI.—*Genera*: *Lembosia*, *Histerographium*, *Rhytidhysterium*, *Trybliella*.

TRIBE VI. TUBERACEI.—*Genus*: *Mylitta*.

SUBORDER VI.—PYRENOMYCETES.

TRIBE I. HYPOCREACEI.—*Genera*: *Hypocrea*, *Gibberella*, *Hypomyces*, *Sphærostilbe*, *Nectria*.

TRIBE II. XYLARIACEÆ.—*Genera*: *Xylaria*, *Poronia*, *Rhopalopsis*, *Hypoxylon*, *Nummularia*.

TRIBE III. DOTHIDIEI.—*Genera*: *Melogramma*, *Dothidea*, *Rhytisma*, *Phyllachora*, *Dothidella*.

TRIBE IV. VALSIÆ.—*Genera*: *Diatrype*, *Valsa*.

TRIBE V. SPHÆRIÆ.—*Genera*: *Cucurbitaria*, *Daldinia*, *Anthostoma*, *Physalospora*, *Scortechinia*, *Sphæria*, *Sphærella*, *Capnodium*, *Micropeltis*, *Gibellia*, *Didymella*, *Didymosphæria*.

TRIBE VI. PERISPHORIÆ.—*Genera*: *Meliola*, *Asterina*, *Antennaria*, *Sphærotheca*, *Chætomium*, *Eurotium*.

PYRENOMYCETES (incomplete).

TRIBE I. SPHÆRONEMEI.—*Genera*: *Chætophomas*, *Cytospora*, *Phoma*, *Phlyctæna*, *Gamospora*, *Actinothecium*, *Melophia*, *Phyllosticta*, *Sphæropsis*, *Diplodia*, *Ascochyta*, *Robillarda*, *Diplodina*, *Pestalozzia*, *Glæosporium*, *Melophia*.

SUBORDER VII.—HYPHOMYCETES.

TRIBE I. ISARIACEI.—*Genus*: *Ceratium*.

TRIBE II. STILBACEI.—*Genera*: *Stilbum*, *Fusarium*, *Myrothecium*, *Epicoccum*, *Illosporium*, *Microcera*.

TRIBE III. MUCEDINEI.—*Genera*: *Aspergillus*, *Sporotrichum*, *Nematogonium*, *Thozetia*, *Oidium*.

TRIBE IV. DEMATIEI.—*Genera* : Cladosporium, Cercospora, Fumago, Harpographium, Isariopsis, Helminthosporium, Brachysporium, Actinomma, Cerebella.

TRIBE V. TRICHODERMACEI.—*Genera* : Trichoderma, Sapedonium.

TRIBE VI. TORULACEI.—*Genera* : Torula, Hormiscium, Periconia, Bisporea, Scolecotrichum, Bactridium.

SUBORDER VIII.—PHYSOMYCETES.

TRIBE I. MUCORINI.—*Genera* : Mucor, Circinella.

SPURIOUS GENERA OF FUNGI.

XYLOSTROMA—

giganteum, *Sow.*

RHIZOMORPHA, *Ach.*—

Harrimanni.

corynephora, *Kunze.*

SUBORDER I.—HYMENOMYCETES, *Fries.*

TRIBE I.—AGARICINI, *Fries.*

AGARICUS, *Linn.*

AMANITA. (From the Greek; certain *Amanitai fungi* found on Mount Amanus, in Cilicia.)

A. vaginatus, *Bull.*, *Fries Hym. Eur.* 27; *Cooke Illust. t.* 12. (So named from the volva forming a sheath.)

A. ossideus, *Fries.*

Hab. : Near Brisbane.

LEPIOTA. (Derived from the Greek, referring to the ear-shaped scales of the pileus.)

A. procerus, *Scop.*, *Fries Hym. Eur.* 29; *Cooke Illust. t.* 21. Parasol Mushroom.

A. excoriatus, *Schæffer*, *Fries Hym. Eur.* 30; *Cooke Illust. t.* 23.

A. leontoderes, *Berk. et Br.*, *Fungi Ceylon*, *Linn. Journ.* xi. 499.

A. cheimonoceps, *Berk. et Curtis*, *Cuban Fungi* 283.

A. granulatus, *Batsch.*, *Fries Hym. Eur.* 36.

A. aspratus, *Berk.*, *Lond. Journ. of Bot.* 1849, 94.

A. clypeolarius, *Bull.*, *Fries Hym. Eur.* 32; *Cooke Illust. t.* 38.

A. cepæstipes, *Sow.*, *Fries Hym. Eur.* 35.

A. dolichaulos, *B. et Br.*, *Fungi of Ceylon*, *Linn. Journ.* xi. 496.

A. megalotholes, *Kalchb.*

A. rhytipelta, *Kalchb. et F. v. M.*, *Proc. Linn. Soc. N.S.W.* vii. 104.

A. stenophyllus, *Cooke et Mass.*, Grev. xv. 98.

Hab. : Endeavour River.

A. Beckleri, *Berk.*, Linn. Soc. Journ. xiii. 156.

Hab. : Near Brisbane.

A. bubalinus, *Berk.*, Linn. Journ. xiii. 156.

Hab. : Queensland.—*F. v. M.*

ARMILLARIA. (From *armilla*, a ring.)

A. melleus, *Vahl.*, Fries Hym. Eur. 44; Cooke Illust. t. 32.

TRICHOLOMA. (Bordered or fringed with hairs, alluding to the character of the veil.)

A. civilis, *Fries*, Hym. Eur. 71; Fr. Icon. t. 42 f. 1.

CLITOCYBE. (From the Greek, alluding to the central depression of the pileus.)

A. rheicolor, *Berk.*, Ann. Nat. Hist. iii. 376.

COLLYBIA. (From the Greek, alluding to the form of fungus, like a small coin.)

A. laccatinus, *Berk.*, Linn. Journ. xviii. 383.

A. coagulatus, *B. et Br.*, Linn. Trans. ii. 53.

MYCENA. (From the Greek for fungus.)

A. silenus, *Berk. et Br.*, Linn. Journ. xi. 524; Ceylon Fungi p.o. 120.

OMPHALIA. (Navel-like, alluding to the boss in the centre of the pileus.)

A. scyphiformis, *Fries*, Hym. Eur. 159; Fries Icon. t. 75 f. 3.

A. oniscus, *Fries*, Hym. Eur. 158.

A. umbelliferus, *Linn.*, Fries. Eur. 160.

A. gomphomorphus, *Berk.*, Linn. Journ. xviii. 383.

PLEUROTUS. (From the Greek, alluding to the stem when present being on one side.)

A. sordulentus, *Berk. et Br.*, Linn. Trans. ii. 54.

A. illuminans, *F. v. M.*, Linn. Journ. xiii. 157.

A. corticatus, *Fries*, Hym. Eur. 166.

A. applicatus, *Batsch.*, Consp. t. 125; Fries Hym. Eur. 180.

A. Guillfoylei, *Berk.*, Linn. Journ. xiii. 158.

A. lenticula, *Kalchb.*, Grev. viii. 151 t. 142 f. 3.

A. semisupinus, *Berk. et Br.* = *A. nidulus*, *B. et C.*

A. semiliber, *B. et Br.*, Linn. Trans. (2nd series) ii. 54.

Hab. : On the bark of scrub trees, Brisbane River.

A. Thozetii, *B. et F. v. M.*, Linn. Journ. xviii. 383.

A. salignus, *Fries*, Hym. Eur. 174. Willow *Pleurotus*.

Hab.: Endeavour River.—Grev. xii. 13.

A. mitis, *Pers.*, Syn. 481. Kidney-shaped *Pleurotus*.

Hab.: Port Denison.—Grev. xii. 13.

A. ostreatus, *Fries*, Hym. Eur. 173. Oyster *Pleurotus*.

Hab.: Queensland.—*F. v. M.*

A. Baileyi, *B. et Br.* in Herb. Berk. = *LENTINUS FULVO-ATOMATUS*,
B. et Br.

PHOLIOTA. (Plant scaly.)

A. phyllicigena, *Berk.*

Hab.: Mount Mistake, on stem of live tree, 15 feet from the ground.

A. adiposus, *Fries*.

Hab.: Ithaca Creek.

HEBELOMA. (Alluding to the fringe-like veil.)

A. nudipes, *Fries*, Hym. Eur. 242; *Kalch. Hung.* t. 14 f. 4.

FLAMULA. (From the diminutive of flame.)

A. sapineus, *Fries*, Hym. Eur. 251.

A. picriens, *Fries*, Hym. Eur. 251.

A. Baileyi, *Berk. et Br.*, Linn. Trans. ii. 54.

A. gymnopodius, *Bull.*

Hab.: Near Brisbane.

NAUCORIA. (From *naucum*, a kind of vessel hollowed like a ship.)

A. Bowmani, *Berk.*, Linn. Journ. xiii. 128.

A. anguineus, *Fries*, Hym. Eur. 255.

GALERA. (From *galera*, a cap.)

A. peroxydatus, *Berk.*, Journ. Bot. 1843, 511.

CREPIDOTUS. (From the Greek for sandal, and *Pleurotus*.)

A. mollis, *Schæffer*, t. 213; *Fries* Hym. Eur. 275.

A. interceptus, *Berk.*, Flora Tasm. t. 181 f. 6.

A. stromaticus, *Cooke et Mass.*, Grev. xv. 94.

Hab.: On bark, Daintree River.

PSALLIOTA. (From the Greek—the curb-chain or ring attached to it; from its analogy to *Armillaria*, in being ringed.)

A. versipes, *Berk. et Br.*, Linn. Trans. ii. 54.

A. campestris, *Linn.*, *Fries* Hym. Eur. 279. Common Mushroom.

PSATYRELLA (Diminutive of *Psathyra*.)

A. hiascens, *Fries*, Hym. Eur. 314; *Bull* t. 552 f. 2.

A. disseminatus, *Pers.*, Syn. 403; *Fries* Hym. Eur. 316.

A. acerinus, *Fries*.

COPRINUS, Fries.

- C. stercorarius**, *Fries*, Hym. Eur. 331. Found growing on dung.
C. ephemerus, *Fries*, Hym. Eur. 331. Ephemeral.
C. tomentosus, *Fries*, Hym. Eur. 325. Tomentose.

CORTINARIUS, Fries.

(So named from the cobweb-like texture of the veil.)

Spores rusty-ochre, resembling in colour peroxide of iron; veil universal, of a different texture to the pileus, and consisting of arachnoid threads; a similar veil is found in *Agaricus*, but it is there either partial or continuous with the cuticle of the pileus; stem confluent with the hymenophore; gills adnate, membranaceous, persistent, cinnamon-coloured and powdery; trama floccose.—*Cooke's British Fungi* i. 171.

- C. cinnabarinus**, *Fries*. Cinnabar-coloured.

PAXILLUS, Fries.

- P. hirtulus**, *Kalchb.*
P. crassus, *Fries*, Hym. Eur. 404.

HYGROPHORUS, Fries.

- H. miniatus**, *Fries*, Hym. Eur. 418.
H. porphyrinus, *Berk. et Br.*, Linn. Trans. ii. 65.
H. scarlatinus, *Kalchb.*, Grev. viii. t. 143 f. 11.

LACTARIUS, Fries.

(So named from the milky juice.)

Spores white or very pale-yellow, generally echinulate; veil none, but in some species the margin of the pileus is bearded or pubescent; pileus fleshy, of a floccose or versiculose (not fibrous) texture, at length depressed in the middle, margin at first involute; stem fleshy, not corticate, often hollow when old, confluent with the hymenophore; gills milky, in nearly all the species at first white, often changing to sulphur colour, red or violet on exposure to the air, subdecurrent, unequal, with an acute edge; trama subvesiculose.—*Cooke's British Fungi* i. 206.

The species are easily recognised by the milky gills. The genus is nearly allied to *Russula*, but readily distinguished by its milky juice. They vary greatly in taste, being mild, aromatic, bitter, or acrid and burning. *Lactarius*, therefore, includes delicate and excessively poisonous species.—*Cooke, l.c.*

- L. quietus**, *Fries*, *Epier.* 343. The mild reddish *Lactarius*.
L. piperatus, *Fries*, Hym. Eur. 430. Peppery *Lactarius* (poisonous).

Hab.: Endeavour River.—Grev. xii. 13.

RUSSULA, Fries.

- R. rubra**, *Fries*, Hym. Eur. 444.
R. fragilis, *Fries*, Hym. Eur. 450.
R. sanguinea, *Fries*, Hym. Eur. 442.
R. Linnæi, *Fries*.
 Hab. : Brisbane River.

CANTHARELLUS, Adans.

- C. aurantiacus**, *Fries*, Hym. Eur. 455.
C. cibarius, *Fries*, Hym. Eur. 455.

MARASMIUS, Fries.

- M. rotula**, *Fries*, Hym. Eur. 477.
M. confertus, *Berk. et Br.*, Ceylon Fungi, Linn. Journ. xi. 352.
M. rhyticeps, *Kalchb.*, Grev. 14, 71 t. 143 f. 15.
M. rufo-pallidus, *Kalchb.*, Grev. iv. 71 t. 143 f. 15.
M. calobates, *Kalchb.*, Grev. iv. 71 t. 143 f. 15.
M. opacus, *Berk. et Cooke*, Hook. Journ. 1849, 99.
M. aciculiformis, *Berk. et Br.*, Linn. Journ. x.
M. pellucidus, *Berk. et Br.*
M. Muelleri, *Berk.*, Linn. Journ. xviii. 583.
M. equicrinis, *B. et Br.*, Grev. xiii. 153.
M. exocarpi, *Berk.*, Linn. Jour. xviii. 384.
M. calopus, *Fries*.
 Hab. : Enoggera.

LENTINUS, Fries.

- L. pergamenus**, *Fries*, Sym. Myc.
L. fulvus, *Berk.*, Ann. Nat. Hist. x. 369.
L. fasciatus, *Berk.*, Hook. Journ. 1840, 146.
L. cyathus, *Berk. et Br.*, Linn. Trans. ii. 400.
L. Lecomtei, *Fries*, Epicr. 1888.
L. subdulcis, *Berk.*, Hook. Journ. 1851, 46.
L. subnudus, *Berk.*, Hook. Journ. 1847, 492.
L. exilis, *Klotsch*, Fries Sym. Leut. 10.
L. vulpinus, *Fries*, Hym. Eur. 486.
L. Dunalii, *Fries*, Hym. Eur. 481.
L. eugrammus, *Mont.*, Cuba 414 t. 17 f. 2.
L. cretaceus, *Berk.*

L. Shannii, *Berk.*

L. blepharodes, *Berk. et Curt.*, Fungi Cuba No. 155.

L. catervarius, *B. et Br.*, Linn. Trans. ii. 55.

L. exasperatus, *B. et Br.*, Linn. Trans. ii. 55.

L. Kurzianus, *Currey.*

L. punctaticeps, *B. et Br.*, Linn. Trans. ii. 55.

L. fusipes, *Cooke et G. Mass.*, Grev. xvi. 1.

Hab.: Trinity Bay.

L. cochleatus, *Fries*, *Epier.*; *Sow.* t. 168; *Cooke* Brit. Fungi. 712.

Hab.: At stump of tree, Kedron Brook. Met with also in West Australia, Europe, and America; the confluent stems forming dense clusters.

L. lepideus, *Fries.* Scaly *Lentinus*.

L. strigosus, *Fries*, *Epier.* 388.

Hab.: North Queensland.—Grev. xii. 13.

L. Schomburgkii, *Berk.*, Linn. Trans. xxiii. t. 9 fig. 30.

Hab.: Daintree River; Port Denison.—Grev. xii. 13.

L. holopogonius, *Berk.*

Hab.: Queensland.—Grev. x. 63.

L. lateritius, *Berk.*, Linn. Journ. xviii. 384.

Hab.: Queensland.—*F. v. M.*

PANUS, *Fries.*

P. incandescens, *Berk. et Br.*, Trans. Linn. Soc. ii. 54.

P. angustatus, *Berk.*

P. viscidulus, *Berk. et Br.*, Linn. Trans. ii. 55.

P. torulosus, *Fries*, *Epier.* 397.

P. suborbicularis, *B. et Br.*, Linn. Trans. ii. 55.

P. rivulosus, *Berk.*, Linn. Journ. xviii. 384. Furrowed or rilled.

TROGIA, *Fries.*

Pileus submembranaceous, soft, tough, flaccid but very dry, flexible, reviving; gills venose, fold-like, forked, edge longitudinally channelled or crisped; texture fibrillose; spores white.—*Cooke's* British Fungi i. 246.

T. crispa, *Fries*, *Epier.* 369. (Referring to the narrow vein-like crisped gills.)

XEROTUS, *Fries.*

X. albidus, *B. et Br.*, Linn. Trans. ii. 56.

X. lateritius, *B. et Cooke*, Journ. Linn. Soc. x. 303.

X. Rawakensis, *Fries*, *Epier.*

X. proximus, *Berk. et Br.*, Linn. Trans. ii. 56.

X. fulvus, *Berk. et Br.*

X. tener, *Berk. et Br.*, Linn. Journ. xiv. 45.

X. Bertierii, *Mont*, Chil. vii. 353.

X. Archeri, *Berk.*, Flora Tasm. ii. 250 t. 182 f. 1. (After W. Archer.)

SCHIZOPHYLLUM, Fries.

S. commune, *Fries*, Hym. Eur. 492.

S. multifidum, *Fries*.

LENZITES, Fries.

L. striata, *Fries*, Epicr. i. 406.

L. betulina, *Fries*, Hym. Eur. 493.

L. deplanata, *Fries*, Epicr. i. 404.

L. faventinus, *Cald.*, Erb. Critt. Ital. No. 89.

L. Beckleri, *Berk.*, Journ. Linn. Soc. xii. 161.

L. Berkeleyi, *Lév.*, Ann. Sci. Nat. 1866, 122.

L. Palisoti, *Fries*, Epicr. i. 404.

L. Guilfoylei, *Berk.*

L. nivea, *Cooke*, Grev. xv. 94. Whole plant snowy-white.

L. repanda, *Fries*, Epicr. 404.

Hab.: Queensland.—Grev. xii. 14.

L. abietina, *Fries*, Hym. Eur. 495.

Hab.: Queensland.—*F. v. M.*

TRIBE II.—POLYPOREI, *Fries*.

BOLETUS, Dill.

B. pachypus, *Fries*, Hym. Eur. 506.

B. ananæceps, *Berk.*, Linn. Journ. xiii. 161.

B. Thozetii, *Berk.*, Linn. Journ. xviii. 384.

B. hædinus, *B. et Br.*, Linn. Trans. ii. 57.

B. edulis, *Bull.*, Fries Epicr. 420. Edible.

STROBILOMYCES, Berk.

S. nigricans, *Berk.*, Hook. Journ. 1852, 189.

POLYPORUS (Eupolyporus), Fries.

Pileus pliant, fleshy, then becoming hard (seldom brittle, on account of a cheesy flakiness); surface without furrows or zones, but the connective substance radiating, fibrose (within), often zoned. Pores never spread out flat.

NOTE.—The Queensland species of the old genus *Polyporus* are here arranged in accordance with Dr. M. C. Cooke's monograph, and will therefore be found in the genera *Polyporus*, *Fomes*, *Polystictus*, and *Poria*.

A.—OVINI.

Stipes central, plant fleshy, growing on earth.

* Pileus rough, scaly or flaky.

P. Hartmanni, Cooke, Grev. xii. 14.

Hab.: Toowoomba.

P. myclodes, Kalchb., Grev. iv. 73.

Hab.: Gracemere.—*L.c.*

B.—LENTI.

Foot central; substance from fleshy-pliant to hard; growing upon wood.

* Pileus rough, scaly or shaggy-hairy.

P. brumalis, Fries, Hym. Eur. 526.

Hab.: Brisbane.

P. orbicularis, Sauter, Hedw. xv. 150; (*rhypidium*, Berk. Lond. Journ. 1847 319 = *Favolus*.)

Hab.: Brisbane.

**** Pileus with ciliated margin.

P. arcularius, Fries, Hym. Eur. 526 = *P. agaricens*, Berk. Ann. Nat. Hist. x. 371.

Hab.: Brisbane.

P. tricholoma, Mont., Syll. 153.

Hab.: Rockhampton.—Grev. iv. 73.

P. similis, Berk., Hook. Journ. 1843, 635.

Hab.: Endeavour River; Goode Island.—Grev. xii. 15.

***** Pileus glabrous.

P. stipitarius, B. et. Curt. Var. *Armitii*, F. v. M. et. Kalchb., Grev. x. 94 t. 145 f. 22.

Hab.: Dunrobin.

C.—SPONGIOSA.

Pileus at first soft-spongy, absorbing water, tomentose, afterwards corky or coriaceous, stipes irregularly shortened. Pores irregular, discoloured, moist-frosty.

** Inner substance whitish.

P. rufescens, Fries, Syst. Myc. i. 351.

Hab.: Queensland.—Grev. x. 95.

P. protelporus, Cooke, Grev. xii. 15.

Hab.: Toowoomba.—*L.c.*

D.—MELANOPODES.

Foot central or frequently lateral. Stipes blackish, at least at the base. Pileus from fleshy-pliant to hardened.

* Pileus scaly or flaky.

P. squamosus, *Fries*, Syst. Myc. i. 343. (*Boucheanus*, Klotzsch, Linn. viii. 318 = *Favolus*.)

Hab.: Endeavour River.—Grev. xii. 15.

P. melanopus, *Fries*, Syst. Myc. i. 347.

Hab.: Taylor's Range.

** Pileus smoothish.

P. picipes, *Fries*, Syst. Myc. i. 353.

Hab.: Redland Bay; Gracemere.

P. elegans, *Bull.*, Champ. t. 46.

Hab.: Queensland.—*F. v. M.*

P. Guilfoylei, *Berk. et Br.* = *P. NONSCRIPTUS*, *Berk.* in Herb.

Hab.: Logan.

P. dictyopus, *Mont.*, Syll. 155.

Hab.: Enoggera; Prettyboy Creek.

E.—PETALOIDES.

Pileus tough, fleshy, truly lateral (posterior portion not margined). Stipes wholly pallid, usually very short, in a straight line with the pileus as a rule, commonly striate-vergate in all parts except the zones.

* Pileus almost glabrous.

* Pileus subsquamous or floccose.

P. grammocephalus, *Berk.*, Lond. Journ. i. 147.

Hab.: Enoggera.

P. grammocephalus, var. **Emerici**, *Berk.*, Grev. x. 96.

Hab.: Queensland.—*L.c.*

P. platotis, *Berk. et Br.*, Linn. Trans. (2nd series) ii. 401.

Hab.: Enoggera Creek.

P. dorcadideus, *Berk. et Br.*, Linn. Trans. ii. 401.

Hab.: Enoggera Creek.

P. fusco-lineatus, *Berk. et Br.*, Linn. Trans. ii. 401.

Hab.: Enoggera Creek.

F.—FRONDOSI.

Pileus carnose, firm, floccose-fibrose, without zones and not hardened, coriaceous; caespitose from a central point, stipitate, springing from a common base, more or less concrete; in the smaller forms the pileus is central and simply lobed, as may be repeatedly noted. Pores separated.

P. intybaceus, *Fries*, *Epicr.* 446.

Hab.: On wood, near Brisbane.

P. confluens, *Fries*, *Epicr.* 447 = *P. ARTEMIDORUS*, *Lenz.*; also *P. AURANTIUS*, *Schæff.*

Hab.: Port Denison.—*Grev.* xii. 16.

G.—LOBATI.

Pileus from fleshy to tough and subcoriaceous, more or less zonate, inner substance fibrose; pores adnate; caespitose, laterally substipitate, manifold-imbricate; stipites more or less connate or arising from a common outgrowth.

P. anthracophilus, *Cooke*, *Grev.* xii. 16.

Hab.: Rockhampton.—*L.c.*

H.—IMBRICATI.

Pileus epelliculose, cheesy. At first soft, juicy, afterwards dry, fragile, zoneless, pores not crowded. Caespitose, sessile to the stem of trees, commonly dimidiate, in position truly horizontal, on all sides expanding from the centre, at first from a single amorphous tubercle spreading out in innumerable small pilei.

P. sulphureus, *Fries*, *Epicr.* 450 = *P. CAUDICINUS*, *Scop.*; *P. CEBATONIAE*, *Fries*; and *P. CITRINUS*, *Pers.*

Hab.: Bunya Mountains.

P. retiporus, *Cooke*, *Grev.* xii. 15.

Hab.: Daintree River.—*L.c.*

I.—MOLLIS.

Anodermous. Pileus cheesy, at first soft, watery, fragile, and not flocculose, with regard to the inner substance thin (white), setose-hispid, with somewhat separated white pores. Adult forms at one time soft, at another hardened, but quickly putrescent and not lasting through the winter.

* Pileus tomentose.

P. corvivalis, *Berk.*, *Linn. Journ.* xiii. 162.

Hab.: Enoggera Creek.

P. chioneus, *Fries*, *Hym.* Eur. 546.

Hab.: Queensland.—*F. v. M.*

P. argentatus, *Cooke*, *Grev.* xv. 20 = *P. PALLISERI*, *Grev.* x. 98 (not *Berk.*).

Hab.: Queensland.—*Grev.*, *l.c.*

L.—DICHROI.

Anodermous. Pileus fleshy, tough (likewise tenacious in young forms), pliant, elastic; with regard to the inner substance fibrose-floccose, villose-tomentose; pores sub-adnate, coloured. Always soft and somewhat supple.

* Inner substance coloured.

P. foedatus, *Berk.*, Linn. Trans. xvi. 41.

Hab.: Somerset, Cape York.—*L.c.*

P. rubidus, *Berk.*, Hook. Journ. 1847.

Hab.: Cairns.

P. gilvus, *Schw.*, Syn. Car. 897.

Hab.: Maroochie.

P. scruposus, *Fries*, Epicr. 897.

Hab.: Enoggera Creek.

** Inner substance white.

P. adustus, *Fries*, Hym. Eur. 549.

Hab.: Queensland.—Grev. x. 97.

M.—HISPIDI.

Anodermei—*i.e.* pileus—at first very spongiose-aquose, afterwards strongly elastic, formed out of tough fibres extremely diverging and spread out and thence setose-hispid; pores with fleshy fibres almost contiguous. The fleshy substance commonly exhibits an intermediate stratum, differing little from the hispid exterior.

* Inner substance coloured.

P. hispidus, *Fries*, Hym. Eur. 551.

Hab.: Enoggera Creek.

P. fruticum, *Berk. et Curt.*, Linn. Journ. x. 310.

Hab.: Enoggera; Cairns.

** Inner substance white.

P. pelliculosus, *Berk.*, Hook. Journ. 1848.

Hab.: Enoggera Creek.

P. substuppeus, *Berk. et Cooke*, Linn. Journ. xv. 381.

Hab.: Endeavour River.—Grev. xii. 16.

N.—SUBEROSI.

Pileus at first sub-carnose, succose, ultimately hardened, a thin rind for outer covering; pores fine, at length falling away from under.

** Inner substance white.

P. betulinus, *Fries*, Hym. Eur. 555 = *P. albellus*, *Peck*.

Hab.: Queensland.—Grev. xii. 16.

P. portentosus, *Berk.*, Hook. Journ. 1844.

Hab.: Enoggera.

O.—LIGNESCENTES.

Pileus more or less concentrically sulcate, 1-striate, and the living substance somewhat soft and succose, yet coriaceous from

whatever place as soon as they have been dried, contracted and commonly curved, with annual growth changing into tinder—the original substance soft, sub-fibrose ; pores never spread out flat.

* Inner substance white.

P. hypopollus, *Kalchb.*, Grev. x. 99.

Hab. : Rockhampton.—*L.c.*

P. cartilagineus, *Berk. et Br.*, Ceylon Fungi.

Hab. : Johnstone River.—Grev. xii. 16.

** Inner substance pallid. † Pileus rugose, zonate.

P. zonalis, *Berk.*, Ann. Nat. Hist. x. 375.

Hab. : Brisbane.

P. testudo, *Berk. et Br.*, Linn. Trans. 2 ii. 401.

Hab. : Maroochie.

*** Inner substance brown.

P. anebus, *Berk.*, Hook. Journ. 1847.

Hab. : Maroochie.

P. vinosus, *Berk.*, Ann. Nat. Hist. ii. vol. ix. 195.

Hab. : Maroochie.

FOMES, Fries, Nova Symb. 31.

Pileus at first hardened ligneous (rarely soft, dropping water); inner substance floccosely interpressed, outer covering rigid, stretched, without zones, but at length concentrically sulcate. Perennial fungi (commonly stratose), growing again after decay, but the stratum is only of yearly growth.

A.—MESOPODES.

Pileus entire, glabrous, stipes distant, vertical, simple.

** Stipes brown, pruinose or tomentose.

F. rugosus, *Nees*, Nova Acta Cur. xiii. t. 7.

Hab. : South Queensland.

B.—PLEUROPODES.

Pileus horizontal, not at all round, glabrous, crustate-laccate ; stipes simple, ascending, corticate or definitely lateral or excentric.

* Stipes laccate.

F. amboinensis, *Fries*, Epicr. 442. Var. *gibbosus*, *Nees*, Acta Cur. xiii. t. 5.

Hab. : Rockhampton.—Grev. iv. 73.

F. lucidus, *Fries*, Epicr. 442 = *P. laccatus*, *Pers.* ; *P. nitens*, *Batsch.* ; and *P. obliquatus*, *Bull.*

Hab. : Maroochie.

F. lucidus, var. exquisitus, *Kalchb.*

C.—MERISMOIDEI.

From the common trunk or tubercle, the very numerous persistent tough pileoli are spread out, the inner substance floccose, somewhat soft, moistened; pores adnate.

F. scabriusculus, *Berk.*, Linn. Journ. xviii. 385.

F. senex, *Nees*, Mont. Syll. 160 = *RHABBARINUS*, *Berk.*

Hab.: Trinity Bay Range.

D.—FOMENTARII.

Pileus floccose, moistened, at first without moisture, not at all fleshy or spongy, outer covering hard, horny; pores at length stratose.

** Inner substance pallid, wood-coloured.

F. marginatus, *Fries*, Hym. Eur. 561.

Hab.: Queensland.—*F. v. M.*

F. dochmius, *Berk. et Br.*, Linn. Journ. xiv. 50.

Hab.: Daintree River.—Grev. xii. 16.

*** Inner substance dark, fulvous.

F. conchatus, *Fries*, Hym. Eur. 560.

Hab.: Queensland.—*F. v. M.*

**** Inner substance black-brown or purple-brown.

F. australis, *Fries*, Hym. Eur. 556 = *P. DUBIUS*, *Jungh.*

Hab.: Queensland.—*F. v. M.*

F. chilensis, *Fries*, Nov. Sym. 47.

Hab.: Rockhampton.—Grev. iv. 73.

F. applanatus, *Fries*, Hym. Eur. 557 = *P. DRYADEUS*, *Rostk.*

Hab.: Brisbane scrubs.

***** Inner substance ferruginous.

F. igniarius, *Fries*, Hym. Eur. 559 = *P. POMACENS*, *Pers.*;
P. OBTUSUS, *Pers.*

Hab.: Brisbane forest trees.

F. fulvus, *Fries*, Hym. Eur. 559 = *NOVÆ-ANGLIÆ*, *Berk. et Cooke*,
Grev. i. 51.

Hab.: Queensland.—Grev. x. 99.

F. salicinus, *Fries*, Hym. Eur. 560.

Hab.: Queensland.—Grev. x. 99.

E.—IMPOLITI.

Pileus dimidiate, ligneous, perennial, at first anodermous, floccose, slightly pruinose, at length indurate-incrustate, hardening to one identical structure throughout. Inner substance

H

fibrose-radiate, descending into the pores, which are crowded together, elongated, not stratosse.

* Inner substance pallid.

F. contrarius, *Berk. et Curt.* in Herb. Berk. 2634.

Hab.: Maroochie.

*** Inner substance tawny or ferruginous.

F. lineato-scaber, *Berk. et Br.*, Linn. Trans. ii. 59. t. 11 f. 1.

Hab.: Port Douglas.

F. pectinatus (*Klot.*), *Fries*, Hym. Eur. 559 = *P. conchatus*, *Quel.*

Hab.: Queensland.—*F. v. M.*

**** Inner substance black-brown.

F. endopalus, *Berk.*, Linn. Journ. xiii. 163.

Hab.: Queensland.—*Grev. x. 100.*

***** Inner substance (?)

F. ponderosus, *Kalchb.*, *Grev. x. 99.*

Hab.: Rockhampton.—*L.c.*

F.—LÆVIGATI.

Pileus dimidiate, ligneous (and, moreover, from the first dry, in which it differs from the *Lignescenti*, above); cuticle thin (not separated into different layers), outer covering somewhat polished (younger forms, however, often flocculose). Pores crowded, not stratosse; inner substance floccose-fibrillose, very pallid.

* Inner substance white or whitish.

F. compressus, *Berk.*, Hook. Journ. 1845, 53.

Hab.: Brisbane, on fences.

F. connatus, *Fries*, Hym. Eur. 563.

Hab.: Queensland.—*F. v. M.*

** Inner substance pallid.

F. ferreus, *Berk.*, Hook. Journ. 1847.

Hab.: Queensland.—*F. v. M.*, Fragm. xi.

F. scopulosus, *Berk.*, Hook. Journ. 1852.

Hab.: Daintree River.—*Grev. xii. 15.*

*** Inner substance fleshy.

F. carneus, *Nees*, Nova Acta xiii. t. 3.

Hab.: Queensland.—*F. v. M.*

**** Inner substance black-brown.

F. cinereo-fuscus, *Curt.*, Linn. Trans. 1876.

Hab.: Trinity Bay Ranges.

F. placodes, *Kalchb.*, *Grev. iv. 73.*

Hab.: Rockhampton.—*L.c.*

***** Inner substance reddish or ferruginous.

F. Palliseri, *Berk.* in Herb.; Berk. No. 2562 = *TRAMETES ARCTICUS*, *Berk.* No. 3044.

Hab.: Queensland.—Grev. x. 98.

F. incrassatus, *Berk.*, Linn. Journ. xvi. 41 = *BENIFORMIS*, *Morg.* Bot. Gaz. 1882, 136.

Hab.: Queensland.—Grev. x. 98.

G.—RESUPINATI.

Pileus resupinate or the margin reflexed.

F. obliquus, *Fries*, Hym. Eur. 570.

Hab.: Queensland.—*F. v. M.*

F. bistratosus, *Berk. et Cooke*, Linn. Journ. xv. 384.

Hab.: Bellenden-Ker Range.—Grev. x. 131.

F. Pentzel, *Kalchb.*

POLYSTICTUS, Fries, Nova Symb. 54.

Pileus coriaceous, inodermous, fibrillose; intermediate strata wanting in the hymenophorum, in which the pores are spread out successively from the centre towards the circumference, at first superficial, punctiform, separated, exposed, and standing vertically against the substance of the pileus; trama formed from the hymenophorum. Growth concentric, zonate.

A.—PERENNES.

Foot central or lateral, with anodermous stipes; inner substance and spores sub-ferruginous. Stipes often lateral.

P. luteo-nitidus, *Berk.*, Hook. Journ. 1856.

Hab.: Trinity Bay Ranges.

P. perennes, *Fries*, Hym. Eur. 531 = *P. CONFLUENS*, *Schum.*; and *P. CORIACEUS*, *Bull.*

Hab.: Trinity Bay Ranges.

P. oblectans, *Berk.*, Hook. Journ. 1845 = *SPLENDENS*, *Peck.*, 26th report 68.

Hab.: Brisbane River scrubs.

B.—SACRI.

Pileus coriaceous or papery, dry, zonate. Stipes leathery-crustaceous.

P. quadrans, *Berk. et Br.*, Trans. Linn. Soc. i. 400.

Hab.: Trinity Bay Ranges.

P. xanthopus, *Fries*, Epicr. 473. = *CUPREO-NITENS*, *Kalchb.*, Myc. Univ. 1702 = *CRASSIPES*, *Curr.*, Linn. Trans. 1876, 122.

Hab.: Brisbane River scrubs.

C.—DISCIPEDES.

Pileus coriaceous, subreniform, zonate; stipes lateral (often elongated), commonly very short, with scutate-dilatate base.

* Dilatati. Pileus dry.

P. flabelliformis, *Klot.*, Fries *Epier.* 444.

Hab.: Brisbane River scrubs.

P. dilatatus, *Lév.*, Ann. Sci. Nat. 1844, 184.

Hab.: Queensland.—*F. v. M.*, *Fragm.* xi.

P. mutabilis, *Berk. et Cooke*, Grev. i. 88.

Hab.: Daintree River.—Grev. xii. 15.

P. luteus, *Nees*, Nova Acta N. C. xiii. t. 4 f. 2.

Hab.: Brisbane River scrubs.

P. cognatus, *Kalchb.* = *P. STERREINUS*, *Berk. et Curt.*

P. carneo-niger, *Berk.*, Grev. xii. 15.

Hab.: Daintree River.—Grev. xii. 15.

P. nephridius, *Berk.*, Hook. Journ. 1856, 195.

Hab.: Taylor's Rangè.

P. affinis, *Nees*, Fries *Epier.* 445 = *TEYSMANNI*, *Berk.* in Herb. 2424.

Hab.: Trinity Bay Ranges.

P. brunneolus, *Berk.*, Hook. Journ. iii. 187.

Hab.: Daintree River.—Grev. xii. 15.

P. murinus, *Lév.*, Ann. Sci. 1844.

Hab.: Rockhampton.—Grev. iv. 72.

P. libum, *Berk.*, Linn. Journ. xiii. 163.

P. sanguineus, *Fries*, *Epier.* 444.

Hab.: Queensland scrubs.

D.—PROLIFICANTES.

Pileus coriaceous, thin, more or less prolificant, indefinitely changeable in the stipes, from time to time wanting, more or less prolonged.

P. elongatus, *Berk.*, Hook. Journ. 1842, 149 = *HODGKINSONIÆ*, *Kalchb.*, Grev. x. 96; and *P. KALAPENSIS*, *Curt.*, Sillim. Journ. 1850.

Hab.: Brisbane River scrubs.

P. elongatus, var. spipitatus, *Broome.*

Hab.: Port Douglas.

P. gallopavonis, *Berk. et Br.*, Trans. Linn. Soc. i. and Grev. x. 101.

Hab.: Enoggera Creek.

E.—FUNALES.

Dimidiate, sessile. The intermediate strata of the hymenophorum coriaceous, the outer parts strongly formed from the rough, coarse, overlapping fibres.

P. funalis, *Fries*, *Epicr.* 459.

Hab.: Trinity Bay Ranges.

F.—STUPOSI.

Pileus floccose-glabrate or appressed villose, unequally azonate; inner substance fibrose, ligneous or like tow. Pileus often dry, and with coriaceous zones not at all variegated, and not even manifestly separable.

*** Inner substance flesh-coloured or lilac.

P. Feel, *Fries*, *Epicr.*, 459.

Hab.: Queensland.—*F. v. M.*

P. lilacino-gilvus, *Berk.*, *Ann. Sci. Nat.* iii. 324.

Hab.: Enoggera Creek.

P. eucalypti, *Kalchb.*, *Grev.* iv. 73.

Hab.: Rockhampton.—*L.c.*

**** Inner substance red or purple.

P. cinnabarinus, *Fries*, *Syst. Myc.* i. 371.

Hab.: Brisbane River scrubs.

***** Inner substance yellow or golden.

P. radiatus, *Fries*, *Hym. Eur.* 565. = **P. fusco-gilvus**, *Schwarz.*; and **P. glomeratus**, *Peck.*

Hab.: Taylor's Range.

***** Inner substance reddish-brown.

P. venustus, *Berk.*, *Hook. Journ.* 1845, 55.

Hab.: Trinity Bay Ranges.

P. floridanus, *Berk.*, *Ann. Nat. Hist.* x. 376.

Hab.: Ithaca Creek.

P. chrysoleucus, *Kalchb.*, *Grev.* iv. 72.

Hab.: Rockhampton—*L.c.*

G.—CORIACEI.

Pileus dimidiate, sessile, coriaceous, zoned; inner substance tenacious, floccose.

A.—*Versicolores.*

Inner substance white.

* Genuini.

P. versicolor, *Fries*, *Hym. Eur.* 568 = **P. argyraceus**, *Pers.*

Hab.: Main Range, Cunningham's Gap.

** Hirsuti.

P. hirsutus, *Fries*, Hym. Eur. 567.

Hab. : Main Range.

P. velutinus, *Fries*, Hym. Eur. 568 = *P. NIGRICANS*, *Lasch*.Hab. : Endeavour River scrubs.—*Grev.* xii. 17.**P. vellereus**, *Berk.*, Hook. Journ. i. 455.

Hab. : Daintree River.

P. pinsitus, *Fries*, *Epicr.* 479.Hab. : Queensland.—*F. v. M.*, *Fragm.* xi.

*** Ectypi.

Pileus glabrescent.

P. trizonatus, *Cooke*, *Grev.* xii. 17.Hab. : Queensland.—*F. v. M.*

*** Abietini.

P. stereoides, *Fries*, Hym. Eur. 569.Hab. : Upper Daintree River.—*Grev.* xii. 17.*B.—Scortei.*

* Inner substance pallid.

P. peradeniæ, *Berk. et Br.*, Linn. Journ. xiv. 51.

Hab. : Brisbane and Northern scrubs.

P. rigidus, *Lév. Ann.*

Hab. : Port Douglas.

P. Persoonii, *Fries.* (*Dædalea sanguinea*, Klot.)

Hab. : Brisbane River scrubs.

C.—Lutescentes.

* Inner substance fulvo-ferruginous.

*** Inner substance olivaceous.

P. aratus, *Berk.*, Linn. Journ. xvi. 53 = *TRAMETES ACUPUNCTATUS*, *Berk.*, Linn. Journ. xiii. 164.Hab. : Queensland.—*Grev.* x. 100.**P. luteo-olivaceus**, *Berk. et Br.*, Linn. Trans. i. 402.

Hab. : Brisbane River scrubs.

P. luteo-olivaceus, var. tenuis.

Hab. : Port Douglas.

D.—Caperati.

* Inner substance brown.

P. Hasskarlii, *Lév.*, *Ann. Sci. Nat.* 1844, 190 = *P. FERRUGINEUS*, *Jungh.*Hab. : Queensland.—*F. v. M.*, *Fragm.* xi.

P. cichoraceus, *Berk.*, Fries Nova Symb. 76 = *INTYBACEUS*, *Berk.*, Hook. Journ. i. 149.

Hab.: Brisbane River and Northern scrubs.

P. xerampelinus, *Kalchb.*, Grev. iv. 72.

Hab.: Rockhampton.—*L.c.*

H.—MEMBRANACEI.

Pileus papery, very thin; inner substance wholly longitudinally fibrose, not at all floccose; pores very small.

P. breviporus, *Cooke*, Grev. xii. 17.

Hab.: Endeavour River.—*L.c.*

I.—SUBRESUPINATI.

Pileus subresupinate or the margin reflexed.

P. bireflexus, *Berk. et Br.*, Grev. x. 101.

Hab.: Queensland.—*L.c.*

P. eriophora, *Berk. et Br.*, Linn. Trans. ii. 60 t. 11 f. 5, 6.

Hab.: Brisbane River scrubs.

P. Broomei, *Rabh.*, Fungi Eur. Ex. No. 2004.

Hab.: Enoggera Creek.

PORIA, Pers. Syn. p. 542.

Resupinate, effuse, from above porous. Pileus for the most part obliterated. Substance fleshy, finely fibrose, coriaceous or membranaceous.

A.—MOLLUSCI.

Pileus widely spread, fleshy, soft, with minute pores for the most part equal, rotundate.

* Pores persistently white.

† Hymenium splitting in chinks.

P. vulgaris, *Fries*, Hym. Eur. 578 = *P. CELLULOSUS*, *Whlbg.*, Succ. ii. 961.

Hab.: Queensland.—Grev. x. 103.

P. calcea, *Berk. et Br.*, Linn. Journ. xiv. 55.

Hab.: Trinity Bay Ranges.

†† Hymenium scarcely cracking.

P. medulla-panis, *Pers.*, Syn. 544 = *P. BIBULUS*, *Pers.*

Hab.: Enoggera Creek.

** Pores white, afterwards pallid-ochraceous.

P. callosa, *Fries*, Hym. Eur. 577.

Hab.: Brisbane.

**** Pores carnose.

P. hyposclera, *Berk.*, Grev. x. 103.

Hab.: Queensland.—*F. v. M.*, *Fragm.* xi.

B.—VAPORARI.

Pileus widely spread, fleshy; pores unequal, angular, commonly somewhat large.

* Pores persistently white.

P. vaporaria, *Fries*, Hym. Eur. 579 = *CELLARIS*, Lib. Crypt. Exs.

Hab.: Brisbane, on bamboo roots.

C.—RIGIDI.

Pileus effuse, coriaceous, dry, tough; pores somewhat large, rotundate, subhexagonal, or angular, nearly equal; dissepiments short, rigid.

* Pores white.

P. corticola, *Fries*, Hym. Eur. 580.

Hab.: Queensland.—*F. v. M.*

***** Pores ferruginous or nut-brown.

P. ferruginosa, *Fries*, Syst. Myc. i. 378 = *CORIUM*, *Kunze* in *Herb. Berk.*

Hab.: Logan River scrubs.

P. contigua, *Fries*, Syst. Myc. 378 = *P. CROCEUS*, *Karst.*

Hab.: Daintree River.—Grev. xii. 17.

D.—RETICULATI.

Pileus irregularly effuse, the greater number forming a crust, thin-membranaceous. Pores somewhat large, distant, cupuliform, with very short somewhat veined dissepiments.

* Pores persistently white.

P. dictyopora, *Cooke*, Grev. xii. 17.

Hab.: Toowoomba.—*L.c.*

TRAMETES, *Fries*.

T. pyrrhocreas, *Berk.*, Linn. Journ. xiii. 164.

T. versatilis, *Berk.*, Lond. Journ. of Bot. 1842, 150.

T. acupunctata, *Berk.*, Linn. Journ. xiii. 164.

T. devexa, *Berk.*, Linn. Journ. xiii. 165.

T. rigida, *Berk. et M.*, Ann. Sci. Nat. 1849.

T. pictus, *Berk. et Br.* (*T. Muelleri*, var., *Berk.* Linn. Journ. x. 320.)

T. occidentalis, *Fries*, *Epicr.* 491.

- T. lactinea**, *Berk.*, Ann. Nat. Hist. x, 371.
Hab.: Endeavour River.—Grev. x. 181.
- T. lævis**, *Berk.*, Hook. Journ. 1847, 507.
Hab.: Port Denison.—Grev. x. 131.
- T. colliculosa**, *Berk.*, Hook. Journ. 1847, 506.
Hab.: Port Denison.—Grev. x. 131.
- T. versiformis**, *Berk.*, Linn. Journ. xiv. 56.
Hab.: Rockhampton.—Grev. x. 132.
- T. Curreyi**, *Cooke*, Trans. Bot. Soc. Edin. (*T. umbrina*, Curr., not of Fries.)
Hab.: On old fruit-trees, Brisbane.—*Bailey*.
- T. cristata**, *Cooke*, Grev. x. 132.
Said to particularly differ from *T. versatilis* in the branched hairs of the pileus.
Hab.: Port Denison.—Grev. x. 132.
- T. acuta**, *Cooke*, Grev. x. 132.
Hab.: Port Denison.—Grev. x. 132.
- T. serpens**, *Fries*.
- T. obstinatus**, *Cooke*, Grev. xii. 17.
Hab.: On stumps of trees, Endeavour River.—Grev. xii. 18.
- T. ochroflava**, *Cooke*, Grev. ix. 12.
Hab.: Brisbane.
- T. Muelleri**, *Berk.*, Linn. Journ. x. 320.
Hab.: Queensland.—*F. v. M.*
- T. ochroleucus**, *Berk.* = *POLYPORUS BRISBANENSIS*, *Berk. et Br.*
Hab.: Brisbane.

DEDALEA, Fries.

- D. sanguinea**, *Klot.*, Fries Epicr. 493. (*Polyporus Persoonii*, Fries.)
- D. tenuis**, *Berk.*, Hook. Journ. 1842, 151.
- D. Bowmani**, *Berk.*, Linn. Journ. xiii. 165.
- D. unicolor**, *Fries*, Hym. Eur. 588.
- D. Sprucei**, *Berk.*, Hook. Journ. 1856, 236.
- D. aspera**, *Klot.*, Linnæa viii. 480.
- D. incompta**, *Berk.*, Linn. Trans. ii. 61 t. 12 f. 7-9.
- D. scalaris**, *B. et Br.*, Linn. Trans. ii. 61.
- D. subcongener**, *Berk.*
Hab.: Queensland.—Grev. x. 133.
- D. sinulosa**, *Klot.*, Linnæa xiii. 482.
Hab.: Port Denison.—Grev. x. 133.
- D. aulacophyllus**, *Berk.*, Linn. Journ. xiii. 165.
Hab.: Queensland.—*F. v. M.*

HEXAGONA, Fries.**H. polygramma**, *Mont.*, Cuba t. xiv. f. 3.**H. subtenuis**, *Berk.***H. Muelleri**, *Berk.*, Linn. Journ. xiii. 166.**H. umbrinella**, *Fries*, Fungi Natal 17.**H. tenuis**, *Berk.* in Knuth Synop. 10.**H. crinigera**, *Fries*, Epicr. 496.**H. Wightii**, *Klot.*, Fries Nova Symb. 84.**H. rigida**, *Berk.*, Linn. Journ. xvi. 54.**H. similis**, *Berk.*, Hook. Journ. 1846, 4.**H. decipiens**, *Berk.*, Linn. Journ. xiii. 166.

Hab. : Mrs. O. G. Spencer, Albany Downs, Mitchell District.

LASCHIA, Fries.**L. Thwaitesii**, *Berk et Br.*, Linn. Journ. xiv. 58.**L. pustulata**, *Berk. et Br.*, Linn. Journ. xiv. 58.**L. cæspitosa**, *Berk.*, Hook. Journ. 1854, 229.**L. tremellosa**, *Fries*, Linnæa v. 533.

Hab. : Mount Dryander.—Grev. x. 134.

MERULIUS, Haller.**M. tenuissimus**, *Berk. et Br.*, Linn. Trans. ii. 62.**M. serpens**, *Fries*.**M. aureus**, *Fries*, Hym. Eur. 592.**M. Baileyi**, *B. et Br.*, Linn. Trans. ii. 62 t. 13 f. 1.**M. lacrymans**, *Schum.*, Fries Hym. Eur. 594.

TRIBE III.—HYDNEI.

HYDNUM, Fries.**H. merulioides**, *Berk. et Br.*, Linn. Trans. ii. 63 t. 13 f. 4.**H. Muelleri**, *Berk.*, Linn. Journ. xvi. 167.**H. ochraceum**, *Pers.*, Fries Hym. Eur. 612.**H. udum**, *Fries*, Hym. Eur. 615.**H. gilvum**, *Berk.*, Hook. Journ. 1851, 168.**H. membranaceum**, *Bull.***H. flavum**, *Klot.*, Ann. Nat. Hist. x. 380.

Hab. : Queensland.—Grev. x. 135.

H. graveolens, *Del.*, Fries Epicr. 509. Strong-scented, the whole plant having a strong smell of *Melilot*, even after being kept for years.—*Berk.*

- H. tomentosum**, *Fries*, *Epicr.* 510.
H. gelatinosum, *Scop.*
H. coralloides, *Fries*, *Hym. Eur.* 607.
 Hab. : Queensland.—*F. v. M.*

IRPEX, *Fries.*

- I. flavus**, *Klot.*, *Linnæa* viii. 488.
I. zonatus, *Berk.*, *Hook. Journ.* 1854.
I. tabacinus, *Berk. et Curt.*, *Nor. Amer. Fungi* No. 198.
I. maximus, *Mont.*, *Ann. Nat. Sci.* 1837.
 Hab. : Queensland.—*Grev.* x. 135.
I. gausapatus, *Berk. et Curt.*, *Nor. Amer. Fungi* No. 2922.
 (Name referring to its rough coating.)
 Hab. : Endeavour River.—*Grev.* xii. 18.

SISTOTREMA, *Pers.*

- S. irpicinum**, *Berk. et Br.*, *Linn. Trans.* ii. 63.

RADULUM, *Fries.*

- R. molare**, *Fries*, *Hym. Eur.* 623.

PHLEBIA, *Fries.*

- P. radiata**, *Fries*, *Hym. Eur.* 625.
P. coriacea, *Berk.*, *Linn. Journ.* xviii. 385.
P. merismoides, *Fries*, *Epicr.* 526.

GRANDINIA, *Fries.*

- G. granulosa**, *Fries*, *Hym. Eur.* 626.

TRIBE IV.—THELEPHOREI, *Fries.***CRATERELLUS**, *Fries.*

- C. cornucopioides**, *Fries*, *Hym. Eur.* 631.
C. confluens, *Berk. et Curt.*, *Linn. Journ.* ix. 423.
 Hab. : Endeavour River.—*Grev.* xi. 28.

CLADODERRIS, *Pers.*

- C. dendritica**, *Pers.* in *Freye. Voy.* t. 1 f. 4.

LACHNOCLADIUM, *Lév.*

- L. furcellatum**, *Lév.*, *Ann. Sci. Nat.* 1846, 159.
L. simulans, *B. et Br.*

THELEPHORA, Ehrb.**T. lamellata**, *Berk. et Curt.*, Sill. Journ. 1851, 95.**T. pedicellata**, *Schw.*, Syn. Car. 108.**T. congesta**, *Berk.*, Linn. Journ. xvi. 168.**T. cristata**, *Fries*, Hym. Eur. 637.**T. caryophyllea**, *Fries*, Hym. Eur. 634.**T. palmata**, *Fries*.**T. (Coniophora) atrovirens**, *Berk. et Br.*

Hab. : On branches of shrubs, Dinmore, Brisbane River.

STEREUM, Fries.**S. Sowerbei**, *Berk.*, Fries Hym. Eur. 633.**S. spongiosipes**, *Berk. et Br.*, Linn. Journ. xviii. 385.**S. spathulatum**, *Berk.*, Hook. Journ. viii. 274; Linn. Trans. ii. t. 14 f. 8-7.**S. illudens**, *Berk.***S. decipiens**, *Berk.*, Hook. Journ. 1845.**S. simulans**, *B. et Br.*, Linn. Trans. ii. 64 t. 13.**S. complicatum**, *Fries*, 518; Linn. Trans. ii. 64 t. 14.**S. fasciatum**, *Schw.*, Syn. 106.**S. elegans**, *Fries*, Epicr. 545.**S. lobatum**, *Kunze* in Fries Epicr. 347.**S. spadiceum**, *Fries*, Hym. Eur. 640.**S. hirsutum**, *Fries*, Hym. Eur. 639.**S. Schomburgkii**, *Berk.*, Linn. Journ. xvi. 168.**S. ostrea**, *Nees*, Fries Nova Sym. 93.**S. nitidulum**, *Berk.*, Hook. Journ. 1845, 638.**S. semilugens**, *Kalchb.*, Grev. ix. 1.**S. radiato-fissum**, *Berk. et Br.*, Linn. Trans. ii. 63 t. 14 f. 8-11.**S. prolificans**, *Berk.***S. caperatum**, *Berk. et Mont.*, Syll. 175.**S. Thozetii**, *Berk.*, Linn. Journ. xviii. 385.**S. Boryanum**, *Fries*, Epicr. 547.**S. purpureum**, *Fries*, Hym. Eur. 639.Hab. : Queensland.—*F. v. M.***S. perlatum**, *Berk.*, Hook. Journ. 1842, 153.

Hab. : Port Denison.—Grev. xii. 18.

S. molle, *Lév.*, Ann. Sci. Nat. 1846, 147.

Hab. : Daintree River.—Grev. xii. 18.

S. sulphureum, *Fries*, Berk. in Grev. i. 164.

Hab. : Queensland.—Grev. xi. 30.

S. luteo-badium, *Fries*.

Hab. : Queensland.—*F. v. M.*

AURICULARIA, Bull.

Hymenium irregularly and distantly folded, gelatinous when wet, different in substance from the pileus.—*Cooke* in *British Fungi* i. 319.

A. albicans, *Berk.*, Linn. Journ. xiii. 170.

A. lobata, *Fries*, Hym. Eur. 646.

A. mesenterica, *Fries*, Hym. Eur. 646.

A. Pusio, *Berk.*, Linn. Journ. xvii. 386.

DICTYONEMA, Bl. et N.

D. æruginosum, *Nees*, Acta N. Cur. xiii. t. 2.

HYMENOCHÆTE, Lév.

H. cacao, *Berk.*, Linn. Journ. x. 333.

H. tenuissima, *Berk.*, Linn. Journ. x. 333.

H. phæa, *Berk.*, Grev. viii. 146.

H. rubiginosa, *Lév.*, Ann. Sci. Nat. 1846, 151.

H. rhabarbarina, *Berk.* (*Corticium rhabarbarina*, *Berk.* ; *Cooke* in Grev. viii. 148.)

H. olivaceum, *Cooke*, Grev. xiv. 11.

Hab. : Toowoomba, on dead branches.—Grev., l.c.

H. innatum, *Cooke et Mass.*, Grev. xv. 99.

Hab. : Daintree River.

PENIOPHORA, Cooke, Grev. viii. 20.

(Name derived from the Greek, meaning shuttle-bearing.)

Plants coriaceous or subcarnose, effuse ; hymenium beset with short, rigid, uncoloured, rough, projecting cells (metuloids), which are attenuated upwards or subfusiform, and give to the surface a velvety appearance.—*Cooke*, l.c.

P. sparsa, *Berk.*, Grev. viii. 21.

P. deglubens, *Berk.*, Linn. Journ. xviii. 385.

P. bambusicola, *B. et Br.*, Trans. Linn. Soc. ii. 64.

CORTICIUM, Fries.

C. olivaceum, *Fries*, Hym. Eur. 660.

C. miniatum, *Cooke*, Grev. ix. 2.

- C. incarnatum**, *Fries*, Hym. Eur. 654.
C. amorphum, *Pers.*, Syn. 165; *Fries*, Hym. Eur. 648.
C. nudum, *Fries*, Hym. Eur. 655.
C. læve, *Fries*, Hym. Eur. 649.
C. cæruleum, *Fries*, Hym. Eur. 651.
C. arachnoideum, *Berk.*, *Fries* Hym. Eur. 649.
C. viscosum, *Pers.*
C. anthochroum, *Fries* Hym. Eur. 661.
C. ochroleucum, *Berk.*

Hab.: On dead branch of Lemon-tree, Toowoomba.—*H. Tryon.*

HYPOCHNUS, *Fries*.

- H. rubro-cinctus**, *Ehrenb.*, Hor. Phys. 85.

CYPHELLA, *Fries*.

- C. Schneideri**, *Broome*.
C. villosa, *Pers.*

TRIBE V.—CLAVARIEI.

CLAVARIA, *Linn.*

- C. rugosa**, *Bull.*, *Fries* Hym. Eur. 669.
C. argillacea, *Pers.*, *Fries* Hym. Eur. 675.
C. stricta, *Pers.*, *Fries* Hym. Eur. 673.
C. Kunzei, *Fries*, Hym. Eur. 669.
C. rufa, *Flora Dan.* t. 775 f. 1.
C. simulans, *Berk. et Br.*
C. botrytis, *Pers.*, Hym. Eur. 667.
C. cristata, *Pers.*, *Fries* Hym. Eur. 668.
C. lætissima, *Pers.*, *Linn. Journ.* xviii. 386.
C. miltina, *Berk.*, *Hook. Journ.* 1852, 140.
C. portentosa, *B. et Br.*, *Linn. Trans.* ii. 65 t. 14 f. 15.
C. aurea, *Schff.*, *Fries* Hym. Eur. 670.
C. fastigiata, *DC.*, *Fries* Hym. Eur. 667.
C. Archeri, *Berk.*, *Flora Tasm.* ii. 261 t. 183 f. 3. (After *W. Archer.*)
C. formosa, *Pers.*, *Fries* Hym. Eur. 670.
 Hab.: Queensland.—*Grev.* xi. 32.
C. mucida, *Fries*, Hym. Eur. 679.
 Hab.: Queensland.—*F. v. M.*
C. Colensoi, *Berk.* in *New Zeal. Flora* ii. 186.
 Hab.: Roadside near General Cemetery, Toowong.

CALOCERA, Fries.**C. cornea**, *Fries*, Hym. Eur. 680.**C. guepinoides**, *Berk.*, Hook. Journ. 1845, 61.

TRIBE VI.—TREMELLINI.

TREMELLA, Fries.

(So named from its tremulous substance.)

Plants gelatinous, tremulous, immarginate. Hymenium not papillate, surrounding the whole of the fungus.—*Cooke's British Fungi* i. 344.

T. lutescens, *Fries*, Hym. Eur. 690.Hab.: Albany Downs, Mitchell District.—*Mrs. C. G. Spencer*.**T. mesenterica**, *Retz.*, Fries Hym. Eur. 690.Hab.: Queensland.—*Grev.* xii. 19.**T. microscopica**, *B. et Br.***T. foliacea**, *Pers.*, Fries Hym. Eur. 690.Hab.: Queensland.—*F. v. M.***HIRNEOLA**, Fries.**H. auricula-judæa**, *Fries*, Hym. Eur. 695.**H. polytricha**, *Fries*, Fungi Nat. 27.**H. rufa**, *Fries*, Fungi Nat. 27.**H. Lesueurii**, *Mont.* = **AURICULARIA LESUEURII**, *Borg.* = *H. AURICULA-JUDÆA.*)**H. hispidula**, *Berk.*, Ann. Nat. Hist. iii: 396.Hab.: Queensland.—*F. v. M.***H. auriformis**, *Fries*.Hab.: Queensland.—*F. v. M.***GUEPINIA**, Fries.**G. spathularia**, *Fries*, Elen. ii. 32.**G. pezizæformis**, *Berk.*, Hook. Journ. 1845, 60.Hab.: Queensland.—*Grev.* xi. 34.**DACRYMYCES**, Nees.**D. sacchari**, *Berk. et Br.*, Linn. Trans. ii. 65.SUBORDER II.—GASTEROMYCETES, *Fries*.TRIBE I.—PHALLOIDEI, *Fries*.**DICTYOPHORA**, Desv.**D. multicolor**, *Berk. et Br.*, Linn. Trans. ii. 65 t. xiv. f. 16.**D. merulina**, *Berk.*, Intell. Obs. ix. 404.

D. speciosa, Klot.Hab.: Queensland.—*F. v. M.***D. aurantiaca**, Montg. A small var. *discolor*, Kalchb., Grev. ix. 2.Hab.: Wigton.—*F. v. M.*, Grev. ix. 2.**D. tahitensis**, Schlecht, Diss.Hab.: Queensland.—*F. v. M.***PHALLUS**, Linn.**P. calyptratus**, Berk. et Br., Linn. Trans. ii. 67.**P. Watsoni**, Berk., Linn. Journ. xviii. 367.**P. quadricolor**, B. et Br., Linn. Trans. ii. 68 t. 14.**CYNOPHALLUS**, Fries.**C. papuasius**, Kalchb., Grev. iv. 74. (*Mutinus papuasius*, Kalchb., Grev. iv. 74.)**C. Caley**, Berk. (*Phallus libidinosus*, Cayley.)**CLATHRUS**, Mich.**C. crispus**, Turpin, Berk. Ann. Nat. Hist. ix. 446.**C. pusillus**, Berk., Hook. Journ. Bot. 1845.**ILEODICTYON**, Tul.**I. gracile**, Berk., Hook. Journ. Bot. 1845.**ASERÖE**, Labill.**A. rubra**, Labill., Voy. Austr. 145.

TRIBE II.—LYCOPERDACEI, Fries.

LYCOGALA, Mich.

Peridium composed of a double membrane, papyraceous, persistent, bursting irregularly at the apex, externally warty or furfureous. Flocci delicate, adnate to the peridium.—*Cooke's British Fungi.*

L. epidendrum, Fries.

Hab.: On an old pine log, Enoggera Creek (Peachey's Scrub).

PODAXON, Desv.**P. pistillaris**, Fries, Syst. Myc. iii. 63.**P. carcinomatis**, Fries, Syst. Myc. iii. 62. Plentiful on ant-hills during summer, 1887.

PHELLORINA, Berk., Lond. Journ. Bot. ii. 421.

(Name derived from the Greek, referring to the cork-like skin of the plants.)

Peridium tough, persistent, with a corky skin, apex opening irregularly, containing a conglomerated mass of globose spores, with a few hyaline flocci amongst them. Stipes hollow, the inside lined by a cartilaginous substance. Spores yellow.—*Berk., l.c.*

P. strobilina, *Kalchb.*, Grev. ix. 4. (*Scleroderma strobilina*, *Kalchb.*, Grev. iv. 74.)

MITREMYCES, Nees.

(Name from the Greek, meaning bonnet fungus.)

Peridium cartilaginous, opening by a sinuous, thickened, mostly bright-red orifice, which is capped by a hard deciduous outer coat. There is, moreover, a thin inner sac, which fills only a portion of the peridium, containing the spores mixed with a few threads. The peridium is supported beneath by cartilaginous intricate bodies, which together form a sort of stem.—*Berk.*

M. viridis, *Berk.*, Hook. Journ. Bot. 1851, 201.

Hab.: Queensland.—*F. v. M.*

TULOSTOMA, Bull.

T. leprosum, *Kalchb.*, Grev. iv. 72.

T. mammosum, *Fries*, Syst. Myc. iii. 42.

MESOPHELLIA, Berk.

M. ingratissima, *Berk. et F. v. M.*, Linn. Journ. xviii. 386. (*Inoderma ingratissimum*, *Berk.*, Linn. Journ. xviii. 386.)

M. arenaria, *Berk.*, Linn. Trans. xxii. 131 t. 25. (*Inoderma arenarium*, *Berk.*, Linn. Journ. xviii. 386.)

DIPLODERMA, Link.

(Name referring to the double peridium.)

Peridium double, exterior woody-fibrous, closed, interiors separate, cartilaginous, central nucleus woody, capillitium radiate.—Grev. xv. 99.

Differs from *Mesophellia*, *Berk.*, in the distinct double peridium. The hard central nucleus is connected with the inner wall of the inner peridium by the radiating threads of the capillitium.—Grev., l.c.

D. suberosum, *Cooke et Mass.*, Grev. xv. 100

Hab.: On the ground, Brisbane.—Grev. xv. 100.

K

GEASTER, Mich.

- G. minimus**, Schw., Sym. 58 No. 327.
G. Guilfoylei, *F. v. M.* in Herb. Berk. No. 4564. (Apparently the same as *G. rufescens*, Pers., Cooke in Grevillea xi. 60.)
G. saccatus, Fries, Syst. Myc. iii. 16.
G. hygrometricus, Pers., Syn. Fungi 135.
G. lignicola, Berk., Linn. Journ. xviii. 386.
G. striatus, DC., Fries Syst. Myc. iii. 13.
G. lageniformis, Vitt., Mon. Lycop. t. 1 f. 2.
G. floriformis, Vitt., Mon. Tub. 18.
G. australis, Berk., Flora Tasm. ii. 265. t. 183 f. 10.
G. striatulus, Kalchb., Grev. ix. 3. (*G. striatus*, var. *minor*.)
 Hab. : Queensland.—Grev. xi. 60.
G. fimbriatus, Fries, Syst. Myc. iii. 16.
G. subiculosum, Cooke et Mass., Grev. xv. 97.
 Hab. : On rotten wood, Trinity Bay.

BOVISTA, Pers.

- B. lilacina**, Mont. et Berk., Hook. Journ. Bot. 1845.
B. Muelleri, Berk., Linn. Journ. xvi. 171.
B. cervina, Berk.

LYCOPERDON, Tournef.

- L. gemmatum**, Batsch, Fries Syst. Myc. iii. 36.
L. pusillum, Batsch, Cont. ii. 123.
L. tephrum, Berk. et Br.
L. cælatum, Fries, Syst. Myc. iii. 32.
L. giganteum, Batsch.
L. australe, Berk., Flora Tasm. ii. 266.
 Hab. : Endeavour River.—Grev. xi. 61. On logs, Mount Mistake.
L. pyriforme, Schff., Fries. Syst. Myc. iii. 29.
 Hab. : Queensland.—*F. v. M.*

MYCENASTRUM, Desv.

- M. phæotrichum**, Berk., Hook. Journ. ii. 418.
M. corium, Berk., Hook. Journ. 1845, 518.
M. olivaceum, Cooke et Mass., xvi. 38.

POLYSACCUM, Fries.

- P. pisocarpum**, Fries, Syst. Myc. iii. 54.
P. olivaceum, Fries, Syst. Myc. iii. 54.

- P. australe**, *Lév.*, Ann. Sci. Nat. 1848.
P. tuberosum, *Mich.*, Linnæa v. 694.
 Hab.: Queensland.—*F. v. M.*
P. microcarpum, *Cooke et Mass.*, xvi. 28.
 Hab.: Toowoomba.

SCLERODERMA, Fries.

- S. vulgare**, *Fries*, Syst. Myc. iii. 46.
S. Bovista, *Fries*, Syst. Myc. iii. 48.
S. geaster, *Fries*, Syst. Myc. iii. 460.
S. pandanaceum, *F. v. M.*, Linn. Journ. xvi. 171.
S. verrucosum, *Pers.*, Syn. Fungi 154.
 Hab.: Queensland.—*Grev.* xii. 19.

TRIBE III.—NIDULARIACEI, *Fries*.

CYATHUS, Hall.

- C. intermedius**, *Tulasne*, Ann. Sci. Nat. 1844, 72.
C. fimetarius, *DC.*, Fl. Fries v. 104.
C. vernicosus, *DC.*, Fl. Fries ii. 270 (*Nidularia campanulata*, Sow.)
C. pusio, *Berk.*, Linn. Journ. xviii. 387.
C. pezizoides, *Berk.*, Linn. Journ. xviii. 387.
C. fimicola, *Berk.*, Linn. Journ. xviii. 387.
 Hab.: Brisbane, on dung.
C. Lesueurii, *Tul.*, Ann. Sci. Nat. 1844, 79.
 Hab.: Rockhampton.—*Grev.* xi. 62. Near Ipswich.—*R. J. Scott.*
C. Montagnei, *Tul.*, Ann. Sci. Nat. 1844, 70.
 Hab.: Queensland.—*Grev.* xi. 62.

CRUCIBULUM, Tul.

- C. vulgare**, *Tulasne*, Ann. Sci. Nat. 1844, 90.

TRIBE IV.—HYPOGÆI.

HYDNANGIUM, Wallr.

- H. australiense**, *Berk. et Br.*, Linn. Trans. ii. 68.

HYMENOGASTER, Vitt.

Plant globose, fleshy, firm or rather soft. Peridium fleshy or thin, running down into an absorbing base. Cavities at first empty, radiating or irregular. Trama composed of elongated cells, but not of byssoid flocci, and therefore not easily separable. Spores various.—*Cooke's British Fungi* i. 359.

- H. lycoperdineus**, *Vitt.*

SUBORDER III.—MYXOMYCETES.

TRIBE I.—CALCAREÆ, *Rostf.***PHYSARUM**, Pers.

(So named from the bladder-like appearance of the peridium.)

Peridium simple membranaceous, very delicate, naked, quite smooth, bursting irregularly. Columella none.—*Cooke's British Fungi* i. 389.

P. Muelleri, *Berk.*, Ceylon Fungi, Linn. Journ. xv. 2.

Hab.: Crocodile Creek.

ÆTHALIUM, Link.

Æ. septicum, *Fries.* (*Fuligo violacea*, Pers.)

SPUMARIA, *Fries.*

S. alba, *DC.*

TILMADOCHÉ, *Fries.*

T. mutabilis, *Rostf.*, Mon. 127.

T. nutans, *Pers.*, *Rostf.* Mon. 127.

CHONDRIODERMA, *Rostf.*

C. difforme, *Pers.*, *Rostf.* Mon. 174.

Hab.: Three-mile Scrub in 1884. Also on grass, Darling Downs.—*H. Tryon*, 7th Jan., 1887.

C. spumaroides, *Rostf.*, Mon. 174.

DIDYMIUM, Schrad.

D. farinaceum, *Schr.*, *Rostf.* Mon. 177.

D. serpula, *Fries.*

TRIBE II.—AMAUROCHÆTEÆ, *Rostf.***STEMONITIS**, Gled.

S. fusca, *Roth.*, *Rostf.* Mon., 193.

S. ferruginea, *Rostf.*, Mon. 196.

TRIBE III.—ANEMEÆ, *Rostf.***TUBULINA**, Pers.

T. nitidissima, *Berk.*, Linn. Journ. xviii. 387.

CLATHROPTYCHIUM, *Rostf.*

C. rugulosum, *Wallr.*, *Rostf.* Mon. 225.

Hab.: On logs, Enoggera Creek.

TRIBE IV.—ARCYRIACEÆ.

ARCYRIA, Hill.

- A. punicea**, Pers., Rostf. Mon. 268.
A. nutans, Fries, Syst. Myc. iii. 180.
A. cinerea, Bull., Rostf. Mon. 272.
A. incarnata, Pers., Rostf. Mon. 275.
A. ferruginea, Sauter, Rostf. Mon. 280.
 Hab.: Rockhampton.—Grev. xi. 62.

TRIBE V.—TRICHIACEÆ.

HEMIARCYRIA, Rostf.

- H. applanata**, Cooke et Mass., Grev. xvi. 20.

Sporangia flattened, discoid, usually combined into a lobate plasmodiocarp, externally glaucous or pale cinereous, internally bright-yellow, apparently uniformly sessile. Tube of capillitium furcate or anastomosing, scarcely so wide as the spores, thickening in the form of half-rings (as in *Arcyria*) encircling the tubes in a diffused spiral. Spores globose, warted, $12\ \mu$ diameter.

Hab: On a rotten *Cycas* at Bowen Park, in company with *Peziza erinacea*.

The threads of the capillitium resemble those of some species of *Arcyria*, but the entire plant seems to have a closer affinity to such species as *Hemiarcyria serpula*. When growing it might at first be mistaken for *Peziza cinerea*, Grev. xvi. 20. As Dr. Cooke found this plant and *Cerebella paspali* more than ordinarily remarkable, his descriptions and notes are reproduced entire.—F. M. B.

SUBORDER IV.—ÆCIDIOMYCETES.

TRIBE I.—PUCCINLÆI.

RÆSTELIA, Rebent.

- R. polita**, Berk., Linn. Trans. ii. 67 t. 15 f. 1-5.

ÆCIDIUM, Pers.

- Æ. apocynatum**, Schw., Berk. in Linn. Trans. (2nd series) i. 407.
Æ. nymphoidearum, B. et Br., Linn. Trans. ii. 67. (*Æ. nymphoides*, DC., Fl. Fries.)

CRONARTIUM, Fries.

- C. asclepiadeum**, Fries, Obs. i. 220.

PUCCINIA, Pers.

- P. Rumicis**, Lasch.

Very thick on the leaves of *Rumex* in Albert Park, Sept. 1886.

P. graminis, Pers., Disp. Fungi 39. (Corn Mildew.) (*Trichobasis rubigo-vera*, Cooke, M. F. t. 7 f. 140-149; *Uredo rubigo*, Eng. Fl. v. 375; *U. linearis*, Eng. Fl. v. 375.

Hab.: On *Andropogon intermedius*, Albert Park, Dec. 1886; and *Leersia hexandra*, near Sandgate.

P. caulincola, Corda.

Hab.: On *Hypochaeris glabra*, Albert Park, 1886-7.

P. helianthi, Schw.

Hab.: Ipswich, on Sunflower leaves.

CEREBELLA, Cesati in Bot. Zeit. 1857 p. 669; Syll. Fungi iv. 761.

(So named from the stroma resembling a brain.)

Stroma lacunose-plicate. Conidia globose, dark-brown, 5 to 6-radiate celled.

C. paspali, Cooke et Mass., Grev. xvi. 20. Stroma convex, hemispherical (2-3 mm.) minutely gyroso-plicate, dark olive; sporules subglobose or subquadrate, divided into 3 or 4 cells (after the manner of *Urocystis*) which ultimately separate, olive, epispore smooth, $20 \times 25 \mu$, ultimate cells $10-12 \mu$ diameter. Basidia of branched interlaced hyphae, which are tinged red, although hyaline, and septate towards the base.—Grev., l.c.

Hab.: Near Brisbane on the inflorescence of *Paspalum scrobiculatum*.

This genus was established by Cesati in 1851, but the diagnosis appears never to have been published. The typical species *Cerebella andropogonis* was issued by Klotzsch ("Herbarium vivum Mycologicum," No. 1587), and the brief description published in the "Botanische Zeitung," 1851, p. 699. Berkeley wrote an account of it, with rude figures, in the "Gardeners' Chronicle," 1852, p. 643; but little notice appears to have been taken of it by Saccardo, who excludes it.

The affinities of this genus could not be determined by Cesati, and Berkeley also seems to have been in doubt, although he suggested a possible relationship to *Urocystis*. This suggestion appears to be reasonable as far as *C. andropogonis* is concerned, where the compound spores arise from a cellular stroma, but in the present species the stroma is filamentous, at least outwards, and the threads and spores suggest at once *Stemphylium*, as interpreted by Prof. Saccardo; whilst on the other hand the habit and general appearance suggest an alliance with *Ustilagines*. For the present, and until further information is obtained, we prefer to accept Berkeley's suggestion, and place the genus temporarily near *Urocystis*.—C. et M., l.c.

UROMYCES, Lév.

(So named from its giving to the plant on which it lives a scorched appearance.)

Minute epiphyllous fungi. Spores unilocular, attached permanently to a decided peduncle of greater length.—Cooke's British Fungi ii. 518.

U. Amygdali, Cooke.

Hab.: Toowoomba.—H. Tryon. On almond and peach leaves; also on peach leaves in Mrs. Coxen's garden, Bulimba.—F. M. B.

MELAMPSORA, Cast.**M. phyllodiorum**, *Berk. et Br.*, Linn. Trans. ii. 67 t. 15 f. 6-8.**M. nesodaphnes**, *Berk. et Br.*, Linn. Trans. ii. 67 t. 15 f. 9.**UREDIO**, Lév.**U. cichoracearum**, *DC.*Hab.: Brisbane on *Bidens pilosa*, 1886-7.**U. Maydis**, *Batsch.*Hab.: On maize; very bad during the early part of 1887 at Toowoomba.—*H. Tryon.*TRIBE II.—**USTILAGINEI**, *Tul.***USTILAGO**, Lamk.**U. axicola**, *Berk.*, Ann. Nat. Hist. 1852 No. 55. (Often occurring extensively on *Fimbristylis*.)**U. bromivora**, *Tul.*Hab.: Albert Park, on *Anthistiria ciliata*.—*H. Simmonds.***U. carbo**, *Tul.*, Mem. Ustil. 78. (*U. segetum*, *Ditm.*)**U. Cesatii**, *F. d. W.*Hab.: Very common in Southern Queensland on *Paspalum scrobiculatum*.**U. Emodensis**, *Berk.*, Hook. Journ. 1851, 202.**SOROSPORIUM**, Rud.**S. Eriachnis**, *Thuemen.***THECAPHORA**, Fing.Spores oblong or subglobose, smooth or echinulate, agglomerated few or many into more or less angular masses enclosed in cysts.—*Cooke's British Fungi* ii. 515.**T. globuligera**, *Berk. et Br.*, Linn. Trans. i. 407.**TILLETIA**, *Tul.***T. epiphylla**, *B. et Br.*, Linn. Trans. ii. 67.**T. caries**, *Tul.*, Mem. Ustil. 113.**GRAPHIOLA**, Poit.**G. phœnices**, *Poit.*, Ann. Sci. Nat. 1824, 473.

On the Date and other palms in cultivation.

SUBORDER V.—**DISCOMYCETES**.TRIBE I.—**HELVELLACEI**, Fries.**LEOTIA**, Fries.Receptacle pileate, supported in the centre by the stem; margin revolute, covered everywhere with the smooth somewhat viscid hymenium.—*Cooke's British Fungi*.**L. lubrica**, *Pers.*, *Cooke's Myc.* t. 44 f. 171. (Shining.)

GEOGLOSSUM, Pers.

(Alluding to the tongue-like form of plants—Earth-tongues.)

Receptacle clavate, simple, confluent with the stem; hymenium surrounding the club.—*Cooke's British Fungi* ii. 662.

G. glabrum, Pers., *Cooke's Myc.* t. 3 f. 1. (*Clavaria ophioglossoides*, Bull. Champ. t. 372.)

Hab.: Queensland.—Grev. xi. 100.

CALLORIA, Fries.

C. decipiens, *Phillips*, Grev. xvi. 5.

Hab.: Brisbane, on string used for tying up plants.

PEZIZA, Dill.

SUBGENUS ACETABULA, *Cooke*.

P. cinereo-nigra, *Berk. et Br.*, Linn. Trans. i. 404 t. 46 f. 16-18.

SUBGENUS TARZETTA, *Cooke*.

P. alutæcolor, *Berk.*, *Cooke Myc.* t. 50 f. 198.

SUBGENUS TRICHOSCYPHA, *Cooke*.

P. tricholoma, *Mont.*, *Cooke Myc.* t. 51 f. 202.

Hab.: Daintree River.—Grev. xi. 100.

SUBGENUS COCHLEARIA, *Cooke*.

P. apophysata, *O. et. P.*

SUBGENUS DISCINA, *Fries*.

P. repanda, *Wahlen*, *Cooke Mic.* t. 62 f. 240.

SUBGENUS GEOSCYPHA, *Cooke*.

P. Thozetii, *Berk.*, Linn. Journ. xviii. 3881.

P. vinoso-brunnea, *Berk. et Br.*, Linn. Trans. (2nd series) v. i. 404 t. 45 f. 11-13.

SUBGENUS HUMARIA, *Fries*.

P. Hartmanni, *Phillips*, Grev. xvi. 5.

Hab.: Condamine River.

P. scatigena, *Berk. et Cooke*, *Cooke's Myc.* t. 18 f. 72.

P. granulata, *Bull.*, Champ. 258 t. 433 f. 3; *Fries Sys. Myc.* ii. 67. (*P. scabra*, Fl. Dan. t. 655 f. 2.)

SUBGENUS SARCOCYPHA, *Cooke*.

P. erinacea, *Schw.* Hedgehog-like.

Hab.: On *Cycas* stump at Bowen Park, and at the roots of trees, Indooroopilly.

SUBGENUS SCUTELLINIA, *Cooke*.

- P. scutellata**, *Linn.*, *Cooke Myc. t. 34 f. 131.*
P. confusa, *Cooke*, *Myc. t. 32 f. 124.*
P. coprogena, *Berk. et Br.*, *Linn. Trans. ii. 69.*

HELOTIUM, *Fries*.

- H. terrestre**, *Berk. et Br.*, *Linn. Trans. ii. 69.*
H. citrinum, *Fries*, *Berk. Outl. p. 372. (Peziza citrina, Fries.)*
 Hab.: Mount Mistake, on wood. Found also in Tasmania, Europe, and America.

CHLOROSPLENium, *Tul.*

- C. æruginosum**, *Tul.*, *Fung. Carp. iii. 187.*
 Hab.: Queensland.—*Grev. xi. 103.*

PHILLIPSIA, *Berk.*

A cup-shaped tough fungus; the hymenium always open.

- P. subpurpurea**, *Berk. et Br.*, *Linn. Trans. ii. 69.*
P. polyporoides, *Berk.*, *Linn. Journ. xviii. 388.*

TRIBE II.—BULGARIACEI, *Fries*.ASCOBOLUS, *Pers.*

- A. Baileyi**, *B. et Br.*, *Linn. Trans. ii. 69.*
A. australis, *Berk.*, *Linn. Journ. xviii. 389.* Very common on cowdung during 1887; at once known from its being so deeply sunk in the dung as to give the masses a perforated appearance.

TRIBE III.—PATELLARIACEI, *Fries*.CENANGIUM, *Fries*.

- C. lichenoides**, *Berk. et Br.*, *Linn. Trans. i. 404 t. 45 f. 9.*

TYMPANIS, *Tode*.

(Referring to the veil resembling a timbrel.)

Receptacle margined, cyathiform, horny; hymenium at first veiled, then breaking up.—*Cooke's British Fungi ii. 722.*

- T. Toomansii**, *B. et Br.*

TRIBE IV.—STICTIEI, *Fries*.STICTIS, *Pers.*

- S. radiata**, *Pers.*, *Obs. ii. 73.*

TRIBE V.—HYSTERIACEI, *Fries.***LEMBOSIA**, Lév.

(Plant boat-like.)

Perithecia ovate or elongate, dehiscent in a longitudinal crack, innate in a fibrillous, branching, radiate underlayer. Asci subglobose or oblong-obovate, 6 to 8-spore; sporidia 2-celled, typically coloured. Epiphytically parasitical fungi, differing from *Aulographum* in the fibrillous underlayer and coloured spores.—Syll. Fung. ii. 742.

L. graphioides, *S. et B.*, Rev. Myc. No. 26, 1885, t. 52 f. 9.

HYSTEROGRAPHIUM, Corda.(From *hysterium* and *graphis*.)

Perithecia superficial or erumpent, oblong, corky-horny, firm, split in tumid lips. Asci clavate. Sporidia oblong, 3 or many-septate with longitudinal brownish or sooty septa. Paraphyses filiform.—Syll. Fung. ii. 776.

H. hiarscens, *Rehm.* (*H. macrum*, *S. et B.*, Rev. Myc. 1885 t. 53 f. 11.)

RHYTIDHYSTERIUM, Speng.(From *rhytis*, wrinkled, and *hysterium*.)

Perithecia elongate, erumpent and dehiscent through longitudinal cracks, the lips of which are swollen and internally involute, obtuse, transversely densely and largely costate-sulcate. Asci 8-spore; sporidia at first hyaline and 1-septate, finally sooty and 3 or more septate. This genus embraces species which are very much allied to Lichens, but which have been included amongst Fungi on account of the entire absence of thallus.—Syll. Fung. ii. 759.

R. Scortechinii, *S. et B.*, Rev. Myc. No. 26, 1885, t. 53 f. 10.

TRYBLIDIELLA, Sacc.(From being closely allied to *Tryblidium*.)

Perithecia erumpent-superficial, subcoriaceous; lips tumid and somewhat widely gaping with paraphyses. Asci 8-spore; sporidia oblong, 2 or many-septate, typically 3-septate, finally sooty.—Syll. Fung. ii. 757.

T. rufula, *Spr.*

TRIBE VI.—TUBERACEI, *Fries.***MYLITTA**, *Fries.*(After *Mylitta*, a heathen deity.)

A hard (when dry) subglobose underground fungus, often several inches in diameter, with a blackish outside; the inside at first soft, white-mealy, vesiculosulo-floccose substance which traverses the central

yellowish nucleus, dividing it into sinuous veins, which consist of a dense mass of extremely minute flexuose filaments, portions of which are swollen and distorted. When dry the veins are very hard and horny and transparent.—From Ann. Nat. Hist. iii. 326.

M. australis, Berk., Ann. Nat. Hist. iii. 325:

Hab.: Main Range near Toowoomba.—C. H. Hartmann.

SUBORDER VI.—PYRENOMYCETES.

TRIBE I.—HYPOCREACEÆ, De Not.

HYPOCREA, Fries.

H. membranaceæ, Berk. et Br., Linn. Trans. ii. 70.

H. discoidea, B. et Br.

GIBBERELLA, Sacc., Mich. i. 43 and 317.

(From somewhat resembling *Gibbera*.)

Perithecia caespitose-stromatic or becoming distinct. Asci 8-spori, with spurious or no paraphyses; sporidia from ovoid to fusiform, 3 or more septate, subhyaline. The conidioid state like in *Fusarium* and *Selenosporium*. The species of this genus resemble each other so much that they might be placed as forms of one species, but vary much in habit, sometimes being caespitose with a stroma or sometimes dispersed without stroma.—Syll. Fung. ii. 552.

G. (Lisiella) passifloræ, Cooke et Mass., Grev. xvi. 5.

Hab.: Brisbane, on dead stems of *Passiflora edulis*.

HYPOMYCES, Tul.

H. chrysospermus, Tul. (The ascigerous or perfect condition, of which *Sepedonium chrysospermum* is the conidia.)

H. aurantius, Tul.

SPHEROSTILBE, Tul.

(From *Sphæria*, and *stilbum*, resemblance.)

Perithecia globose, soft, light-coloured, arising in a group of themselves or fixed on the base of a conidia bearing fungillus (c.f. *Stilbum*, *Atractus*, *Microcera*). Asci elongate, 8-spori; sporidia oblong or ovoid, 1-septate, hyaline. Paraphyses none or spurious.—Syll. Fung. ii. 512.

S. cinnabarina, Mont., Tul. Carp. iii. 103.

S. dubia, Berk., Linn. Journ. xviii. 389.

NECTRIA, Fries.

N. coccinea, Fries, Summa. 388.

TRIBE II.—XYLARIACEÆ.

XYLARIA, Schr.

- X. polymorpha**, *Grev.*, Fl. ed. 355.
X. rhytidophlœa, *Mont.*, Syll. No. 687.
X. aphrodisiaca, *W. et Currey*, Fung. Ang. 280.
X. hypoxylon, *Grev.* Fl. Edin. 355.
X. elastica, *Cooke*, *Grev.* xvi. 4.
 Hab.: On rotten wood, Trinity Bay.
X. australis, *Cooke*, *Grev.* xi. 84.
 Hab.: Endeavour River.—*Grev.* xi. 146.
X. involuta, *Klot.* in *Linnæa*. (*X. tabacina*, *Kickx.*)
 Hab.: Daintree River.—*Grev.* xi. 146.
X. grammica, *Mont.*, Syll. No. 680.
 Hab.: Endeavour and Daintree Rivers.—*Grev.* xi. 146.
X. cerebriformis, *Cooke*, *Grev.* xi. 86.
 Hab.: Endeavour River.—*Grev.* xi. 146.
X. allantoides, *Berk.*, *Hook. Journ.* 1839, 397.
 Hab.: Endeavour River.—*Grev.* xi. 146.
X. lobata, *Cooke*, *Grev.* xi. 86.
 Hab.: Endeavour River.—*Grev.* xi. 146.
X. tuberiformis, *Berk.*, *Flora New Zeal.* ii. 204.
 Hab.: Bellenden-Ker Range.—*Grev.* xi. 146.
X. cretacea, *B. et Br.* (*Hypoxylon cretaceum*, *B. et Br.*, *Linn. Trans.* i. 405 t. 45 f. 2-5.)
 Hab.: On old logs, Trinity Bay Range.
X. (Xyloglossa) cinnabarina, *Cooke et Mass.*, *Grev.* xv. 101.
 Hab.: On stumps, Daintree River.
X. (Xyloglossa) ovispora, *Cooke et Mass.*, *Grev.* xv. 101.
 Hab.: On stumps, Daintree River.
X. gigas, *Cooke*.

PORONIA, Fries.

- P. œdipus**, *Mont.*, *Ann. Sci. Nat.* 1855.
P. pileiformis, *Berk.*, *Hook. Journ.* 1842 t. 7 f. 6. (*Xylaria pileiformis*, *Berk.*, *Linn. Trans.* i. 405.)

RHOPALOPSIS, *Cooke*, *Grev.* xi. 93.

Densely cœspitose, capituli abbreviated, rather simply or shortly stipitate or seated on short ramuli of an intricate stroma.—*Cooke, l.c.*

- R. Angolense**, *Cooke*, *Well. et Curr. Fung. Ang.* 282. (*Hypoxylon Angolense*, *Linn. Trans.* i. 405.)
R. cetrarioides, *Cooke*, *Well. et Curr. Fung. Ang.* 1228. (*Hypoxylon cetrarioides*, *Linn. Trans.* i. 405.)

HYPOXYLON, Fries.**H. flavo-fuscum**, *B. et Br.***H. serpens**, *Fries*, Syst. Myc. ii. 341.**H. rutilum**, *Tul.*, Carp. Fung. ii. 238.**H. rubricosum**, *Fries et Mont.***H. oodes**, *B. et C.* Var.Hab.: On wood, Burpengary.—*Dr. Bancroft*. The normal form was found on dead wood in Ceylon.**H. luteum**, *Fries*, Berk. Ann. Nat. Hist.**H. placentaforme**, *Berk. et Curt.*, Cuban Fungi No. 815. .Hab.: Endeavour River.—*Grev.* xi. 147.**H. hæmatites**, *Lév.*, *Grev.* xi. 133.Hab.: Endeavour River.—*Grev.* xi. 147.**NUMMULARIA**, Tul.

(So named from the supposed resemblance of the plants to a coin.)

Stroma discoid. Perithecia immersed, in separate cells. Sporidia ovate or ovato-globose, straight, simple, dark-coloured, excluded in tendrils.—*Cooke's* British Fungi ii. 798.**N. Baileyi**, *Cooke*, *Grev.* xii. 6. (*Hypoxyton Baileyi*, *B. et Br.*)

Hab.: On wood, Brisbane.

TRIBE III.—DOTHIDIEI, *Fries*.**MELOGRAMMA**, *Fries*.**M. rubricosa**, *Berk.*, *Fries* Elench. ii. 63.**DOTHIDEA**, *Fries*.**D. Fimbristylis**, *B. et Br.*Hab.: On *Fimbristylis*, at Northcote; collected by *R. C. Burton*.**RHYTISMA**, *Fries*.**R. hypoxanthum**, *Berk. et Br.*, Linn. Trans. ii. 71.**R. filicinum**, *Berk. et Br.*, Ceylon Fungi Linn. Journ. xii. 130.**PHYLLACHORA**, Nits.

(So named from its causing leaves to appear ulcerated.)

Stroma hidden, innate or prominent on the surface, effuse or tuberculiform, distinct or confluent, tender without cells, tuberculose or punctulate, black, cells minute, nestling in the stroma, at first somewhat spermatiferous. Asci cylindrical, 8-spored; spores ellipsoid or ovoid, simple, hyaline or faint yellow. Paraphyses filiform.—*Syll. Fung.* ii. 594.

P. Alpinæ, *Sacc. et Berl.*, Rev. Myc. No. 26, 1885.

P. rhytismoides, *Corda.; Sacc.*

DOTHIDELLA, Speg.

(Named from its near ally *Dothidea*.)

Stromata effuse or disciform; subplana dark, cells immersed. Asci with 8 spores. Sporidia ovoid or oblong, 1-septate, hyaline.—Syll. Fung. ii. 627.

D. apiculata, *Sacc. et Berl.*, Rev. Myc. No. 26, 1885, t. 52 f. 8.

TRIBE IV.—VALSIÆL.

DIATRYPE, Fries.

D. chlorosaca, *B. et Br.; Sacc.*, Syk. i. 195, Rev. Myc. t. 52 f. 2.

D. stigma, *Hoffm.*

VALSA, Fries.

V. echidna, *Cooke*, Grev. ix. 4.

TRIBE V.—SPHÆRIÆL.

CUCURBITARIA, Grev.

Cæspitose, erumpent; perithecia globose, depressed, or minutely papillate; sporidia plurilocular and cellular, or 2 or 4-celled and hyaline.—*Cooke's British Fungi* ii. 840.

C. polyscia, *B. et Br.*

DALDINIA, De Not.

(After Abb. Daldini.)

Stroma superficial, subsphæroid; cortex carbonaceous, blackish, inside fibrous, marked in concentrical coloured zones. Asci cylindrical, pedicellate, 8-spored. Spores ovoid or oblong, brown. Perithecia quite immersed. Ostioles umbilical.—Syll. Fung. iii. 393.

D. concentrica, *Bolt.; Ces. et De Not.*

D. c., var. Eschscholzii, *Ehrenb.*

D. c., var. minor, *B. et Br.*, Linn. Trans. ii. 70.

ANTHOSTOMA, Nits.

(Flower-mouthed.)

Stroma effused or limited, somewhat valsæoid or wart-formed, corky or woody. Perithecia membranous, never really carbonaceous; stroma immersed. Asci cylindrical, 8-spored, with paraphyses. Sporidia ellipsoid, oblong, sooty.—Syll. i. 293.

A. capnodes, *Berk.; Sacc.*, Rev. Myc. t. 52 f. 4.

A. microplacum, *B. et C.; Sacc.*, Syll. i. 298, Rev. Myc. t. 52 f. 3.

PHYSALOSPORA, Niessl. Notiz.

(So named from the bladdery spores.)

Perithecia globular, covered, membranous or coriaceo-membranous, black; the small ostiole papillose; erumpent. Asci terete-clavate, thickly truncated, 8-spored, with paraphyses. Spores ovoid or oblong, continuous, hyaline or nearly so.—Syll. Fung. i. 434.

P. gregaria, Sacc.

SCORTECHINIA, Sacc.

S. acanthostroma, Mont. Sacc. et Berl., Rev. Myc. t. 52 f. 6 = *SPHÆRIA ACANTHOSTROMA*, Mont.; *TRICHOSPHÆRIA ACANTHOSTROMA*, Mont. Sacc., Syll. i. 454.

SPHÆRIA, Hill.

S. polyscia, Berk. et Br., Linn. Trans. ii. 70 t. 15 f. 19-21 = *CUCURBITARIA POLYSCIA*.

S. Litseæ, B. et Br.

S. macrozamiæ, B. et Br.

S. sacchari, B. et Br.

SPHÆRELLA, De Not.

S. rubiginosa, Cooke, Grev. xiv. 90.

Hab.: On dead leaves of *Pittosporum rubiginosum*, Johnstone River.—Grev., l.c.

S. destructiva, Berk. et Br., Linn. Trans. ii. 71 t. 15 f. 22-24.

S. smilacicola, Schw.; Cooke.

S. dammaræ, B. et Br.

CAPNODIUM, Mont.

C. elongatum, B. et Desm., Journ. Hort. Soc. iv. 251 f. 5.

MICROPELTIS, Mont.

(Small shields.)

Perithecium dimidiate-scutate, orbiculate, flattened convex, with sunk central pore. Asci clavate, erect. Sporidia fusiform, 3 or many septate, hyaline.—Syll. Fung. ii. 669.

M. applanata, Mont.

M. depauperata, Sacc. et Berl.

GIBELLIA, Sacc., Rev. Myc.

G. dothideoides, Sacc. et Berl., Rev. Myc. 1885 t. 52 f. 7.

DIDYMELLA, Sacc.

Sporidia 2-celled. Perithecia covering membranous, globose-depressed, shortly papillose, usually stalked. Asci 4 to 8-spore, and paraphyses. Sporidia ovoid or ellipsoid, or suboblong, uniseptate, hyaline.

D. Bryoniæ, Tuck.; *Rehm.*

DIDYMOSPHERIA, Tuckel Symb. Myc. p. 140; Syll. Fung. i. 701.

(Twin sphæria.)

Perithecium veiled with the epiderm, unchanged or sometimes blackened, submembranous, minute papillose. Asci and paraphyses. Sporidia in ascus 4 to 8, ovoid-oblong, 1-septate.—Syll. Fung. i. 701.

D. conoidella, Sacc. et Berl., Rev. Myc. 1884.

TRIBE VI.—PERISPORIÆ.

MELIOLA, Fries.

M. amphitricha, Fries, Elen. ii. 109.

M. Tetraceræ, F. v. *M. et Thuemen*, Sym. Myc. Austr. ii. No. 92.

M. mollis, Berk. et Br., Linn. Journ. xiv. 136, plate x. fig. 53.

M. musæ, Mont., Ann. Sci. Nat. 1846, 265.

M. corallina, Mont., Fl. Chil. vii. 472.

M. loganiensis, Sacc. et Berl.

M. densa, Cooke.

Hab.: Queensland.—F. v. *M.*

M. Eucalypti, Cooke.

Hab.: Queensland.—F. v. *M.*

M. octospora, Cooke.

Hab.: On *Tristania conferta* leaves, Brisbane River.

ASTERINA, Lév.

A. Baileyi, Berk. et Br., Linn. Trans. ii. 71 t. 15 f. 25-28.

A. pelliculosa, Berk., Antaret. Crypt. 137.

ANTENNARIA, Link.

A. semiovata, Berk., Ann. Nat. Hist. ii. xiii. 468.

A. Robinsonii, Berk. et M., Mont. Syll. Crypt. No. 1066 et in Berk. Not. of Brazil Fung., Lond. Journ. of Bot. ii. t. 23 f. 2. (*Cladosporium Fumago*, var. *elongatum*, Mont. Fl. J. Fern.)

Hab.: Brisbane Gardens, infesting *Baccharis halimifolia*. First found on ferns at the island of Juan Fernandez.

SPHÆROTHECA, Lév.

S. pannosa, Lév., Ann. Sci. Nat. 1851 xv. 138 t. 6 f. 8. (Rose Blight.)

CHÆTOMIUM, Kunze.

(Name referring to the fungus being covered by bristles.)

Perithecium thin, brittle, mouthless; sporangia linear, containing dark lemon-shaped sporidia.—*Cooke's British Fungi* ii. 652.

C. cymatotrichum, Cooke, Grev. xii. 21. (Name referring to the hairs being wavy.)

Hab.: On leaves of *Solanum Dallachyi*, Johnstone River.

EUROTIIUM, Link.

E. herbariorum, Link., Sp. i. 70. (*Farinaria sulphurea*, Sow. t. 379 f. 3.) Herbarium Mould. An ascigerous condition of *Aspergillus glauca*.

PYRENOMYCETES INCOMPLETÆ.**TRIBE I.—SPHÆRONEMEI.****CHÆTOPHOMA**, Cooke, Grev. vi. 25.

(Bristle-Phoma.)

Perithecia membranaceous, minute, superficial, globose, flask-shaped, elliptical or cylindrical; usually sealed upon or amongst an intricate byssus of ramifying threads, often met with in company with *Cladosporium*.—*Cooke, l.c.*

C. eutricha, S. et B., Rev. Myc. No. 26, 1885, t. 53 f. 13.

CYTOSPORA, Ehrenb.

C. verrucula, Sacc. et Berl., Rev. Myc. No. 26, 1885, t. 53 f. 14.

Hab.: On bark, Logan River.

PHOMA, Fries.

P. purpurea, Cooke et Mass., Grev. xv. 97.

Hab.: On Eucalypt leaves, Brisbane River.

P. rosarum, Durieu et Mont.

PHLYCTENA, Desm.

Minute epiphytic fungi. Perithecium spurious, formed of the blackened cuticle of the plant, convex, opening by a pore, containing a gelatinous nucleus. Spores curved, elongate, spindle-shaped, upon very short sporophores.—*Berk. in New Zeal. Flora.*

P. Passifloræ, Cooke et Mass., Grev. xvi. 3.

Hab.: Brisbane, on dead stems of *Passiflora edulis*.

GAMOSPORA, Sacc. et Berl., Rev. Myc. No. 26, 1885.

G. eriosporoides, Sacc. et Berl., Rev. Myc. No. 26, 1885, t. 53 f. 15.

ACTINOTHECIUM, Cesati in Hedwigia i.

(Radiate form of perithecia.)

Perithecia at first nearly orbicular or angular scutate, dehiscent in rays, often divided into 5 to 7 oblong or lanceolate star-like rays; rays with a longitudinal crack, of a parenchymatous texture. Sporules oblong, continuous, hyaline.—Syll. Fung. iii. 639.

A. Scortechinii, *Sacc. et Berl.* in Syll. Fung. iii. 639; Rev. Myc. t. 53 f. 17.

MELASMIA, Lév.

(Named from its usual black colour.)

Perithecium membranaceous, dehiscent above, rather swollen, at length depressed and rugose, growing in a thin, spot-like, effused receptacle; spores simple.—*Cooke's British Fungi*.

M. Eucalypti, *C. et M.*, Grev. xvi.

Hab.: On Eucalypts, Nerang Creek.

MELOPHIA, Sacc.

(Black Snake—form and colour of spores.)

Perithecium flattened, convex, dimidiate, somewhat soft, black or glaucous-brown at length, corrugated, astomatose or irregularly dehiscent, spori elongate-serpentine, continuous, hyaline.—Syll. Fung. iii. 658.

M. Woodsiana, *Sacc. et Berl.* in Syll. Fung. iii. s. 659; Rev. Myc. No. 26, 1885, t. 53 f. 1.

PHYLLOSTICTA, Pers.

P. Cordylines, *S. et B.*, Rev. Myc. No. 26, 1885.

P. neurospileae, *S. et B.*, Rev. Myc. No. 26, 1885.

P. palmicola, *Cooke*, Grev. xiv. 89.

Hab.: On Palm leaves, Daintree.—Grev. xiv. 89.

SPHÆROPSIS, Lév.

S. Tricorynes, *B. et Br.*, Linn. Trans. ii. 68.

S. Rosarum, *C. et Ellis*.

DIPLODIA, Fr.

(Twin spores.)

Perithecia subcutaneous-erumpent, somewhat carbonaceous; spores uniseptate, escaping by a perforation at the apex.—*Cooke's British Fungi* i. 430.

D. lichenopsis, *Cooke et Mass.*, Grev. xvi. 2.

Hab.: Brisbane River, on leaves of *Acacia complanata*.

PESTALOZZIA, De Not.

(After Dr. F. Pestalozza.)

P. funerea, *Desm.***P. versicolor**, *Speg.***P. uvicola**, *Spg.*Hab.: On *Vitis* leaves, Toowoomba.—*H. Tryon*.This fungus attacks the ripe grapes in North Italy.—*Syll. Fung.* iii. 789.**GLEOSPORIUM**, Mont.**G. cucurbitarum**, *B. et Br.*, Linn. Trans. 268.**G. intermedium**, *Sacc.***G. Denisonii**, *Sacc. et Berl.*, de la Rev. Myc. No. 21, 1885.**G. citricolum**, *Cooke et Mass.*, Grev. xvi. 3.Hab.: Toowoomba, on leaves of Orange.—*H. Tryon*.**G. fructigenum**, *Berk.*Hab.: On Pear fruit, Toowoomba.—*H. Tryon*.**C. Musarum**, *Cooke et Mass.*, Grev. xvi. 3.

Hab.: On Banana fruit bought in Brisbane. The fruit affected with this fungus were dry and for the most part useless.

G. glaucum, *Cooke et Mass.*

Hab.: Forming large bluish spots on living foliage, Nerang Creek.

ASCOCHYTA, Lib.(From *ascos*, a bag, and *cheo*, to pour out—the spores being poured out from the perithecium.)

Perithecia sitting mostly in the colourless parts of leaves or branches, perforated by a central pore, globose or lenticular. Sporules ovoid or oblong, 1-septate, hyaline or greenish. Some which have been described by some authors as *Ascochyta*, with regard to the fructification, belong rather to *Septaria Phyllosticta*, and are not included in the genus by Saccardo.—*Syll. Fung.* iii. 384.

A. apiospora, *Cooke et Mass.*, Grev. xv. 98.Hab.: Johnstone River, on leaves of a Myrtle; and on leaves of *Backhousia myrtifolia*, Taylor's Range.**A. brunnea**, *Cooke et Mass.*, Grev. xv. 90.Hab.: Brisbane River, on leaves of *Tristania conferta*.**ROBILLARDA**, Sacc., Mich. ii. 8.

(After M. L. A. Robillard.)

Perithecia globose-depressed, with the epiderm veiled and finally perforated, membranous. Sporulæ fusoid, 1-septate, greenish hyaline, bearing on the apex long ternate bristles. Basidia obsolete. From the genus *Pestalozzia* this genus differs especially by having perithecia.

E. sessilis, Sacc., Mich. ii. 8. (*Pestalozzia sessilis*, Sacc., M.V. No. 975, Mich. i. 261.)

Hab.: Toowoomba, on vine leaves.—*H. Tryon*. In Europe this fungus is found on the leaves of the common Bramble.

DIPLODINA, West.

(Resembling somewhat *Diplodia*.)

Perithecia subcutaneous or erumpent, globose-papillate, black, glabrescent. Spores ellipsoid-oblong, 1-septate, hyaline.—Syll. Fung. iii. 411.

D. Dendroii, Cooke et Mass., Grev. xvi. 3.

Hab.: On *Dendrobium speciosum*, v. *Hillii*, leaves, growing at Bowen Park, Brisbane.

SUBORDER VII.—HYPHOMYCETES.

TRIBE I.—ISARIACEI, *Fries*.

CERATIUM, Albert et Schw.

C. hydnoides, A. et S., Consp. t. 2 f. 7.

C. arbuscula, Berk. et Br., Linn. Journ. xiv. 97.

TRIBE II.—STILBACEI, *Link*.

STILBUM, Tode.

S. cinnabarinum, Mont., Fl. Cub. 308 t. ii. f. 3.

S. aurantiacum, Berk.

FUSARIUM, Link.

F. (Fusisporum) longisporum, Cooke et Mass., Grev. xvi. 4. A pinkish-white floccose fungus.

Hab.: Brisbane, on dead stems of *Argyrea tilifolia*.

F. decipiens, Cooke et Mass.

Hab.: Brisbane River, on *Ficus aspera*, the native Rough or Purple Fig.

F. rubicolor, Berk. et Br., Linn. Trans. ii. 68 t. 15 f. 10-11.

MYROTHECIUM, Tode.

(Fragrant capsules.)

Receptacle at length marginate; spores diffuent, oblong, forming a flat or slightly convex dark-green stratum.—*Cooke's* British Fungi ii. 559.

M. roridum, Tode, t. 5 f. 38, Grev. t. 140; *Cooke, l.c.* Dewy *Myrothecium*.

Hab.: Brisbane, on old twine used for tying up plants. Mr. Berkeley says that this fungus in America attacks the leaves and inflorescence of *Syringa*, and the glumes of *Eleusine indica*.

EPICOCCUM, Link.

(Name referring to the spores studding the outside of the receptacle.)

Receptacle sub-globose, vesicular, studded with large somewhat stipitate spores.—*Cooke's British Fungi*.

E. scabrum, Corda.

Hab. : On leaves and stems of Potatoes, Cleveland.—*P. Fletcher*.

This fungus is in Europe and America found on the dead stems of grass and many herbaceous plants. The Rev. Mr. Berkeley says it also attacks the roots of *Nyssa*, a genus of Cornaceous trees.

ILLOSPORIUM, Mart.**I. flavellum**, Berk. et Br., Linn. Trans. ii. 68.**I. luteolum**, Sacc.

Hab. : On bark of *Tristania conferta*, Helidon Falls.

MICROCERA, Desm.

Veil persistent, membranaceo-floccose, then splitting above into laciniae; receptacle clavate, fleshy, composed of nearly simple sporiferous threads; spores fusiform, arcuate.—*Cooke's British Fungi* ii. 556.

M. coccophila, Desm., Ann. Sci. Nat. 1848 x. 859.**M. rectispora**, Cooke et Mass., Grev. xvi. 4.

Hab. : On scale insect *Chionaspis citri*, infesting Lemon-trees, Toowoomba.—*H. Tryon*.

TUBERCULARIA, Tode.

Receptacle verrucaform, innate, clothed with a dense stratum of gelatinous minute spores.—*Cooke's British Fungi* ii. 557.

T. leguminum, Cooke et Mass.

Hab. : Mount Perry, on pods of *Cassia*.—*J. Keys*.

TRIBE III.—MUCEDINEI, Fries.

ASPERGILLUS, Link.**A. glaucus**, Link, Spec. i. 67.**A. mucoroides**, Cooke, Grev. xii. 9.

Hab. : On decaying leaves, Johnstone River.—Grev. xii. 9.

SPOROTRICHUM, Link.**S. densum**, Link.**NEMATOGONUM**, Desm.

Threads clavate at the apices, and bearing necklaces of spores on distinct scattered spicules.—*Cooke's British Fungi* ii. 589.

N. aureum, Berk., Eng. Fl. v. 340. (*Aspergillus aureus*, Berk.)

Hab. : Queensland.—Grev. xii. 10.

THOZETIA, Berk. et F. v. M.

(After the late Mons. A. Thozet.)

Sporodochium minute, globose; spores hyaline, oblong, terminated at each end by a single bristle.

T. nivea, B. et F. v. M., Linn. Journ. xviii. 388.

OIDIUM, Link.

O. Tuckeri, Berk., Moniteur Belge 1850 ix. 2383.

O. erysiphoides, Fries, Syst. Myc. iii. 432.

O. leucoconium, Desm., Ann. Sci. Nat. 1829, 102.

Hab.: Brisbane; very common on Pumpkins, &c.

OOSPORA.

(So named from the egg-formed spores.)

Cæspitose, effuse or pulvinate. Conidia catenulate, globose or ovoid, hyaline or coloured.

O. aphides, Cooke et Mass.

Hab.: Ipswich, on Pumpkin leaves.

TRIBE IV.—DEMATIEL, Fries.

CLADOSPORIUM, Link.

C. herbarum, Pers.; Link, Obs. ii. 37.

C. h., var. epixylinum, Corda.

Hab.: On wood, Mount Moon.

C. papyricola, Berk. et Br., Linn. Trans. ii. 68.

C. stenosporum, Berk. et Curt., Nor. Amer. Fungi No. 650.

C. oligocarpum, Corda.

CERCOSPORA, Fries.

(Spores worm-like. *Virgasporium*, Cooke; *Cladosporium et Helminthosporium*, Auct., ex parte.)

Hyphæ somewhat soft, simple or branched, brown, usually forming spots on live leaves. Conidia vermicular, brown, rarely subhyaline.—Syll. Fung. iv. 436.

C. solanacea, S. et Berl., Rev. Myc. No. 26, 1886.

FUMAGO, Pers.

(From *fumus*, smoke.)

Hyphæ decumbent, intricate, often confluent, in wall-like buds frequently forming a black loose crust. Fertile hyphæ when present erect, ramose. Conidia ovoid, oblong, 1 or 2-septate, as a rule chain-like. The conidia state like in *Capnodium*.—Syll. Fung. iv. 547.

F. vagans, Pers., Myc. Eur. i. 9; Tul., Carp. ii. 280 t. 34 f. 2 and 3; Syll. Fung. iv. 547. (*Cladosporium Fumago*, Link; *Syncollesia foliorum*, Ag.; and *Torula Fumago*, Chev., according to Saccardo.)

Hab.: Toowoomba, on vine leaves.—*H. Tryon*. This fungus infests a number of plants in Europe.

HARPOGRAPHIUM, Sacc., Mich. ii. 33.

(Name derived from *harpe* and *graphium*; sickle-formed *graphium*.)

Stroma stipitate, on the apex capitate, equal, scaly on the upper side, provided with pale loose sporophores. Conidia elongated or falcate, continuous, hyaline.—Syll. Fung. iv. 619.

H. quaternarium, Cooke et Mass., Grev. xvi. 3.

Hab.: Brisbane, on dead stems of *Passiflora edulis*.

ISARIOPSIS, Fries.

(So named from resembling an *Isaria*.)

Slender, brownish or becoming pale, terete, consisting of loose hyphæ. Conidia arranged in a panicle or loose head. Some species come near to *Hyalostilbea* and then to *Arthrosporium*, which differs by being of a more robust habit.—Syll. Fung. iv. 631.

I. clavispora, Berk. et Cooke; Sacc. (*Graphium clavisporum*, B. et C., Nor. Amer. Fungi.)

Hab.: Toowoomba, on vine leaves.—*H. Tryon*. The leaves collected by Mr. Tryon seem to belong to an American variety, and in Carolina this fungus is found on *Vitis Labrusca*.

HELMINTHOSPORIUM, Pers.

H. inconspicuum, Cooke et Ell., Grev. t. 99.

Hab.: On Orange trees, Toowoomba.—*H. Tryon*. Found on maize in America.

H. Ravenelii, Curtis in Sill. Journ. 1848, 352.

As in Queensland, this fungus in North America attacks *Sporobolus indicus*, and from this the grass is commonly known there as black-seed.—Rev. M. J. Berkeley, in Grevillea iii. 102.

H. puccinioides, S. et Berl., Rev. Myc. No. 26, 1885, t. 53 f. 19.

H. macrocarpum, Grev.

Hab.: Brisbane, on dead stems of *Passiflora edulis*.

In America this black fungus infests trees of Magnolia, Maple, Chestnut, &c.

BRACHYSPORIUM, Sacc., Mich. ii. 28.

(Alluding to the spores being short.)

Hyphæ rigid, subsimplex, brown, usually on wood. Conidia ovoid or pyriform, 2 or few septate, brown. *Helminthosporium* of some authors, but differs from that genus in the shortness of the conidia.—Syll. Fung. iv. 423.

B. oligocarpum, Corda.; Sacc. (*Helminthosporium oligocarpum*, Corda., Icon. Fung. i. 13 t. iii. f. 182; Sacc.)

Hab. : Brisbane, on dead stems of *Passiflora edulis*.

ACTINOMMA, Sacc.

(Plants having a rayed appearance.)

Sporodochia superficial, flattened, black, radiate-lobed, stelliform; hypothallus setose, insidiously sooty. Conidia from out of the hypothallus, divided into branched chains, globular, hyaline, or brownish.—Syll. Fung. iv. 753.

A. Gastonis, Sacc., Misc. Myc. i. 28.

TRIBE V.—TRICHODERMACEI, Fries.

TRICHODERMA, Pers.

T. viride, Pers., Syn. Fung. 230. (The conidia of *Hypocrea rufa*.)

SEPEDONIUM, Link.

(So named from the plants growing on putrid substances.)

Spores large, simple and globose, or appendiculate.—Cooke's British Fungi ii. 619.

S. chrysospermum, Link., Sp. i. 29. (Conidia of *Hypomyces chrysospermus*.)

TRIBE VI.—TORULACEI, Fries.

TORULA, Link.

T. herbarum, Link, Obs. i. 19.

HORMISCIIUM, Kunze.

(Necklace-like conidia.)

Hyphæ short or obsolete or scarcely distinct from the conidia. Conidia chain-like, not easily separated, cube-like or globose, brown.—Syll. Fung. iv. 264.

H. stilbosporum, Corda.; Sacc. (*Torula stilbospora*, Corda in Sturn DC. Fl. t. 46, et Icon. Fung. v. 50 f. 13.)

Hab. : Brisbane, on dead sticks of *Duranta*; found on Poplars and Willows in Europe.

PERICONIA, Tode.

(From the Greek for "around," and "powder.")

Stem composed of fasciculate compacted threads; head globose; spores fixed to the free apices of the threads.—Cooke's British Fungi ii. 565.

P. nigrella, Berk.; Sacc. (*Sporocybe nigrella*, Berk. Ann. Nat. Hist. No. 226 t. 13 f. 16.)

Hab. : Brisbane, on *Andropogon*; found on Geranium leaves in England.

BISPORA, Corda.**B. monilloides**, *Corda*, Icon i. 9 t. 2 f. 143.**SCOLECOTRICHUM**, Kunze et Schm.

(So named from the plant resembling a hairy worm.)

Hyphæ short, subfasciculate, olivaceous; conidia oblong or ovate at the sides and extremities, differing from *Fusicladium* only by the conidia coming out on the sides.—Syll. Fung. iv. 348.

S. atriellum, *Cooke et Mass.*, Grev. xvi. 3.

Hab.: Brisbane, on dead stems of *Passiflora edulis*. A very curious fungus, resembling a scale insect clothed with short rigid white hairs.

BACTRIDIUM, Kunze.**B. flavum**, *Kunze*, Myc. Hefte. t. i. f. 2.

SUBORDER VIII.—PHYSOMYCETES.

TRIBE I.—MUCORINI, *Fries*.**MUCOR**, Mich.

Threads free; sporangia at length bursting, but not dependent.—*Berk.*, Outl. 407; *Cooke*, British Fungi.

M. phycomyces, *Berk.* Shining or Seaweed Fungus. (*Phycomyces nitens*, *Bisch.*)

Hab.: On old boards, Brisbane.—*H. Simmonds*.

CIRCINELLA, Tieg. et Mon.**C. umbellata**, *Tigh. et Monnier*, Ann. Sci. Nat. 1873 t. 21 f. 18-23. (*Helicostylum Moreliæ*, *B. et Br.*)

MYCELIA.

XYLOSTROMA, Bot.**X. giganteum**, *Tode*, Meckl. i. p. 36 pl. vi.; *Sow.*, Fungi pl. 358.**RHIZOMORPHA**, Ach.**R. Harrimannii**.**R. corynephora**, *Kunze* in Weig. Exs.; *Berk.* in Hook. Journ. viii. 277.

NOTE.—Since the publication of the first supplement to this work the sad news has been received from Europe of the rather sudden death of the celebrated mycologist C. E. Broome, who for many years past has kindly determined the Queensland Fungi for the writer. His death will be a great loss to all studying this rather difficult branch of botanical knowledge, there being so few scientists of note in this branch of botany. Dr. M. C. Cooke, an English mycologist of equal eminence, has promised to carry on the determination of Queensland species, and complete any work left unfinished at the death of Mr. Broome.

Order ALGÆ.

TRIBE MELANOSPERMEÆ OR FUCOIDEÆ.

FUCACEÆ.

SARGASSUM, Ag.

TRIBE GLANDULARIA, J. Ag.

S. Bacularia, Ag.Hab. : Queensland.—*F. v. M.***S. lophocarpum**, J. Ag.Hab. : Queensland.—*F. v. M.*

SUBORDER RHODOSPERMEÆ OR FLORIDEÆ.

RHODOMELACEÆ.

POLYSIPHONIA, Grev.

SECTION DICHLOMÆ.

P. ferulacea, Suhr., J. Ag. Sp. ii. 980.Hab. : Queensland.—*F. v. M.*

RHODYMENIACEÆ.

ERYTHROCLONIUM, Sonder.

(From the Greek, meaning "Red Branch.")

Stem terete, its branches constricted as if jointed, composed of an articulated axial filament, and three strata—the medullary stratum composed of longitudinal, interwoven filaments; the intermediate of several rows of roundish coloured cellules; the cortical of very minute subseriated cellules. Fructification : 1, conceptacles sessile, depressed, umbilicate, opening by a terminal pore, containing within a thick pericarp moniliform strings of spores, radiating from a free central placenta; 2, zonate tetraspores, dispersed through the cortical cells.—*Harvey's Phycologia Australica.*

E. Sonderi, Harv., Phyc. Austr. 86.Hab. : Queensland.—*F. v. M.*

SUBORDER CHLOROSPERMEÆ.

SIPHONACEÆ.

CAULERPA, Lamx.

C. fontinaloides, J. Ag.Hab. : Queensland.—*F. v. M.*

HALIMEDA, Lamx.

H. papyracea, J. Ag.Hab. : Queensland.—*F. v. M.*

VALONIACEÆ.

PENICILLUS, Lamx.

(From *penicillus*, a painter's brush—resemblance of plants.)

Root fibrous, much branched, matted. Frond stipitate, dendroid. Stipes erect, terete, incrustated, composed of numerous unicellular, longitudinal, cylindrical, branching, interwoven filaments, and crowned with a dense pencil of confervoid, articulated, free or cohering ramelli. Cells covered with a porous calcareous pellicle.—*Harvey's Phycologia Australica*.

P. Arbuscula, *Mont.*, Harv. Phyc. Austr. 22.

Hab.: Queensland.—*F. v. M.*

VALONIA, Agardh.

This consists of large cells or sacs, which are simple or branched, and repeatedly constricted.—*Berk.* in Intro. to Crypt. Bot. 135.

V. confervoides, *Harv.*

Hab.: Queensland.—*F. v. M.*

CONFERVACEÆ.

CLADOPHORA, Kuetz.

C. subsimplex, *Kuetz.*

Hab.: Queensland.—*F. v. M.*

INDEX.

	Page.		Page.
Abutilon, <i>Gaertn.</i>	10	Behmeria, <i>Jacq.</i>	55
Acacia, <i>Willd.</i>	20	Bonnet-fungus	121
Acrolejeunea	73	Bovista, <i>Pers.</i>	122
Actinomma, <i>Sacc.</i>	144	Bombyliospora	87
Actinothecium, <i>Cesati, Hedw.</i> ...	138	Brachysporium, <i>Sacc.</i>	143
Æcidium, <i>Pers.</i>	125	Buellia	87
Æthidium, <i>Link.</i>	124	Bryum, <i>Linn.</i>	70
Afzelia, <i>Sm.</i>	19	Bruguiera, <i>Lam.</i>	23
Agapetes	27		
Agapetes, <i>G. Don.</i>	37		
Agaricus, <i>Linn.</i>	93	Caladenia, <i>R. Br.</i>	59
Agonis, <i>DC.</i>	24	Calceolaria, <i>Linn.</i>	42
Aizoon, <i>Linn.</i>	29	Calicium, <i>Ach.</i>	79
Alsomitra, <i>Benth. et Hook.</i>	28	Callipisma, <i>Not.</i>	85
Amphiloma, <i>Fries</i>	84	Calloria, <i>Fries</i>	128
Anacamptodon, <i>Brid.</i>	72	Calocera, <i>Fries</i>	119
Andropogon	126	Calotis, <i>R. Br.</i>	33
Angstromia	68	Candle-wood	51
Antennaria, <i>Link.</i>	136	Campylopus, <i>Brid.</i>	68
Anthistiria	127	Cantharellus, <i>Adans.</i>	97
Anthoceras, <i>Mich.</i>	74	Capnodium, <i>Mont.</i>	135
Anthostoma, <i>Nitz.</i>	134	Capsella, <i>Manch.</i>	7
Anthracotheicum	90	Cardwellia	52
Aralia, <i>Linn.</i>	31	Cartonema	61
Arcyria, <i>Hill.</i>	125	Cassia, <i>Linn.</i>	18
Argyrea, <i>Lour.</i>	41	Caulerpa, <i>Lam.</i>	146
Arthonia, <i>Ach.</i>	90	Cenangium, <i>Fries</i>	129
Arthopyrenia	86	Cephaloziella, <i>Spruce</i>	74
Arthrosporium	143	Ceratum, <i>Albert et Schw.</i>	140
Ascochyta, <i>Lüb.</i>	139	Cerebella, <i>Ces.</i>	126
Ascobolus, <i>Pers.</i>	129	Cercospora, <i>Fries</i>	142
Aseræ, <i>Labill.</i>	120	Cheirolooma	33
Aspergillus, <i>Link.</i>	141	Chiodecton, <i>Ach.</i>	89
Asplenium, <i>Linn.</i>	66	Chionaspis	141
Asterina, <i>Lév.</i>	136	Chloris, <i>Linn.</i>	64
Astronia	27	Chlorosplenium, <i>Tul.</i>	129
Atriplex, <i>Linn.</i>	50	Chætomium, <i>Kunze</i>	137
Aulographum	130	Chætophoma, <i>Cooke</i>	137
Aulacopilum	69	Chiloscyphus, <i>Corda</i>	74
Auricularia, <i>Bull</i>	117	Chondrioderma, <i>Rostf.</i>	124
Avicennia	27	Circinella, <i>Tieg. et Mon.</i>	145
		Cladoderis, <i>Pers.</i>	115
Babbagia, <i>F. v. M.</i>	50	Cladonia, <i>Hoffm.</i>	79
Baccharis, <i>Linn.</i>	33	Cladophora, <i>Kuetz.</i>	147
Bactridium, <i>Kunze</i>	145	Cladosporium, <i>Link.</i>	142
Bza	45	Clathroporina	86
Biatorinopsis	87	Clathroptychium, <i>Rostf.</i>	124
Biophytum	12	Clathrus, <i>Mich.</i>	120
Bird-foot trefoil	17	Clavaria	128
Bispora, <i>Corda</i>	145	Clavaria, <i>Linn.</i>	118
Bidens	127	Cleome, <i>Linn.</i>	8
Blastonia	87	Coccocarpia, <i>Pers.</i>	84
Boletus, <i>Dill.</i>	99	Cœnogonium, <i>Ehr.</i>	89
		Collema, <i>Ach.</i>	78

	Page.		Page.
<i>Coprinus, Fries</i>	96	<i>Fenugreek</i>	17
<i>Coreopsis, Linn.</i>	34	<i>Fimbristylis</i>	127
<i>Corn Mildew</i>	126	<i>Fimbriaria, Nees.</i>	74
<i>Corn Spurry</i>	8	<i>Fissidens, Brid.</i>	73
<i>Corticeum, Fries</i>	117	<i>Fomes, Fries</i>	104
<i>Cortinarius, Pers.</i>	96	<i>Four-o'clock</i>	49
<i>Craterellus, Fries</i>	115	<i>Fossombronina, Raddi</i>	74
<i>Cronartium, Fries</i>	125	<i>Freycinatia, Gaudich.</i>	61
<i>Crotalaria, Linn.</i>	17	<i>Frullania, Raddi</i>	75
<i>Crucibulum, Tul.</i>	123	<i>Fuligo</i>	124
<i>Cucurbitaria, Grev.</i>	134	<i>Fumago, Pers.</i>	142
<i>Cupania, Linn.</i>	15	<i>Funaria, Schreb.</i>	69
<i>Cyathus, Hall</i>	123	<i>Fusarium, Link.</i>	140
<i>Cynophallus, Fries</i>	120	<i>Fusicladium</i>	145
<i>Cyphella, Fries</i>	118	<i>Fusisporum</i>	140
<i>Cytospora, Ehrenb.</i>	187		
		<i>Gamospora, Sacc. et Berl.</i>	137
<i>Dacrymyces, Nees.</i>	119	<i>Gaultheria</i>	39
<i>Dædalea, Fries</i>	113	<i>Geaster, Mich.</i>	122
<i>Daldinia, De Not.</i>	134	<i>Geoglossum, Pers.</i>	138
<i>Dendrobium, Sw.</i>	56	<i>Gidgee</i>	21
<i>Diatrype, Fries</i>	134	<i>Gidia</i>	21
<i>Dichonema</i>	89	<i>Gibberella, Sacc.</i>	131
<i>Dicranella, C. Muell.</i>	67	<i>Gibellia, Sacc.</i>	135
<i>Dictyonema, Bl. et N.</i>	117	<i>Gloeosporium, Mont.</i>	139
<i>Dictyophora, Desv.</i>	119	<i>Glyceria, R. Br.</i>	65
<i>Didymium, Schrad.</i>	124	<i>Glyphis, Ach.</i>	89
<i>Didymella, Sacc.</i>	136	<i>Glyphomitrium, Brid.</i>	68
<i>Didymocarpus, Wall.</i>	44	<i>Goniotalamus</i>	6
<i>Didymosphæria, Tuckel</i>	136	<i>Goodenia, Sm.</i>	36
<i>Diplache</i>	39	<i>Grandinia, Fries</i>	115
<i>Diploderma, Link.</i>	121	<i>Graphina</i>	89
<i>Diplodia, Fries</i>	138	<i>Graphiola, Poit.</i>	127
<i>Diplodina, Wert.</i>	140	<i>Graphis, Ach.</i>	88
<i>Diplycosia</i>	38	<i>Grevillea, R. Br.</i>	53
<i>Dischidia, R. Br.</i>	41	<i>Groundsel-tree</i>	34
<i>Distichophyllum, D. et M.</i>	70	<i>Guava</i>	26
<i>Diuris, Sm.</i>	59	<i>Guepinia, Fries</i>	119
<i>Dodonæa, Linn.</i>	16	<i>Guinea grass</i>	63
<i>Dothidea, Fries</i>	133	<i>Gunnia, F. v. M.</i>	30
<i>Dothidella, Speg.</i>	134	<i>Gydia</i>	21
<i>Dracophyllum, Labill.</i>	40		
<i>Drymaria, Willd.</i>	9	<i>Hakea, Schrad.</i>	53
		<i>Halfordia</i>	26
<i>Earth-tongues</i>	128	<i>Halimeda, Lamæ.</i>	146
<i>Ectropothecium, Mitt.</i>	71	<i>Harpographium, Sacc.</i>	143
<i>Entodon, C. Muell.</i>	71	<i>Hedraanthura</i>	14
<i>Ephemerum, Hampe</i>	69	<i>Hedwigia, Ehrhart</i>	70
<i>Epicoeum, Link.</i>	141	<i>Helicia</i>	52
<i>Eragrostis, Beauv.</i>	64	<i>Helicostylum</i>	145
<i>Eremophila, R. Br.</i>	46	<i>Helminthosporium, Pers.</i>	143
<i>Eria, Lindl.</i>	57	<i>Helotium, Fries</i>	129
<i>Erythroclonium, Sond.</i>	146	<i>Hemiarcyria, Rostk,</i>	125
<i>Eucalyptus, L'Her.</i>	24	<i>Hemicyclia, W. et A.</i>	55
<i>Euonymus</i>	14	<i>Heterothecium</i>	87
<i>Eumitria, Stirton</i>	79	<i>Hexagona, Fries</i>	114
<i>Euphorbia, Linn.</i>	54	<i>Hibbertia, Andr.</i>	5
<i>Eurotium, Link.</i>	137	<i>Hirneola, Fries</i>	119
		<i>Hollandæa, F. v. M.</i>	51
<i>Fabronia, Raddi</i>	72	<i>Holomitrium, Brid.</i>	63
<i>Farinaria</i>	137	<i>Hormiscium, Kunze</i>	144
		<i>Hydnangium, Wall.</i>	123

	Page.		Page.
<i>Hyalostillea</i>	143	<i>Macgregoria, F. v. M.</i>	15
<i>Hydnum, Linn.</i>	114	<i>Macromitrium, Brid.</i>	69
<i>Hydrocotyle, Linn.</i>	30	<i>Madotheca, Du Mort.</i>	76
<i>Hygrophorus, Fries</i>	96	<i>Mallee</i>	24
<i>Hymenochaete, Lév.</i>	117	<i>Marasmius, Fries</i>	97
<i>Hymenogaster, Vitts.</i>	123	<i>Marchantia</i>	78
<i>Hypnodendron, C. Muell.</i>	72	<i>Marvel of Peru</i>	49
<i>Hypnum, Fries</i>	72	<i>Mastigobryum, Nees.</i>	76
<i>Hypochnus, Fries</i>	118	<i>Medinilla, Gaud.</i>	26
<i>Hypocrea, Fries</i>	131	<i>Melaleuca, Linn.</i>	24
<i>Hypochaeris</i>	126	<i>Melampsora, Cast.</i>	127
<i>Hypomyces, Tul.</i>	131	<i>Melanographis</i>	89
<i>Hypopterygium, Brid.</i>	69	<i>Melasmia, Lév.</i>	138
<i>Hypoxyton, Fries</i>	133	<i>Melaspilea, Nyl.</i>	90
<i>Hypsophila, F. v. M.</i>	14	<i>Meliola, Fries</i>	136
<i>Hysterographium, Corda</i>	130	<i>Melogramma, Fries</i>	133
		<i>Melophia, Sacc.</i>	138
<i>Neodictyon, Tul.</i>	120	<i>Merulius, Hollar</i>	114
<i>Illosporium, Mont.</i>	141	<i>Mesophellia, Berk.</i>	121
<i>Inoderma</i>	121	<i>Meteorium, Brid.</i>	71
<i>Irpex, Fries</i>	115	<i>Microcera, Desm.</i>	141
<i>Isariopsis, Fries</i>	143	<i>Micropeltis, Mont.</i>	135
<i>Isoterygium, Mitt.</i>	71	<i>Mildew</i>	126
		<i>Mimosa</i>	12
<i>Johnstone River Teak</i>	19	<i>Mio-mio</i>	34
<i>Jungermannia, Linn.</i>	75	<i>Minuria, DC.</i>	33
		<i>Mirabilis, Linn.</i>	48
<i>Kayea, Wall.</i>	9	<i>Mitremyces, Nees.</i>	121
<i>Kermadecia</i>	63	<i>Mitrephora, Blume</i>	5
<i>Kippiatia</i>	33	<i>Mucor, Mich.</i>	145
		<i>Mushroom</i>	95
<i>Lachnocladium, Lév.</i>	115	<i>Mutinus</i>	120
<i>Lactarius, Fries</i>	96	<i>Mycenastrum, Desv.</i>	122
<i>Lactuca, Linn.</i>	35	<i>Mylitta, Fries</i>	130
<i>Laschia, Fries</i>	114	<i>Myoporum, Banks et Sol.</i>	45
<i>Lecanora, Nyl.</i>	84	<i>Myrmecodia, Jacq.</i>	32
<i>Lecidea, Ach.</i>	86	<i>Myrothecium, Tode</i>	140
<i>Leersia</i>	126		
<i>Lejeunia, Maria Libert</i>	75	<i>Naias, Linn.</i>	63
<i>Lembosia, Lév.</i>	130	<i>Neckera, Hedw.</i>	71
<i>Lentinus, Fries</i>	97	<i>Nectria, Fries</i>	131
<i>Lenzites, Fries</i>	99	<i>Nematogonum, Desm.</i>	141
<i>Leotia, Fries</i>	127	<i>Nephelium, Linn.</i>	66
<i>Lepidozia, Nees.</i>	75	<i>Nephroma, Ach.</i>	80
<i>Lepraria, Ach.</i>	90	<i>Nidularia</i>	123
<i>Leptogium, Ach.</i>	78	<i>Nitella, Ag.</i>	67
<i>Leptotrema</i>	89	<i>Noterocladia, Tayl.</i>	76
<i>Letuce</i>	35	<i>Nummularia, Tul.</i>	133
<i>Leucobryum, Hampe</i>	69		
<i>Leucocarpon</i>	14	<i>Ocellularia</i>	86
<i>Leucoloma, Brid.</i>	68	<i>Enothera, Linn.</i>	28
<i>Limosella, Linn.</i>	44	<i>Oidium, Link</i>	142
<i>Lophocolea, Nees.</i>	76	<i>Oospora, Wall.</i>	142
<i>Lophopetalum</i>	14	<i>Opegrapha, Ach.</i>	88
<i>Lusularia, Mich.</i>	76	<i>Orophea, Blume</i>	6
<i>Lyogala, Mich.</i>	120	<i>Oxalis, Linn.</i>	12
<i>Lycopardon, Tournef.</i>	122	<i>Oyster Mushroom</i>	95
<i>Lycopodium, Linn.</i>	66		
<i>Lygodium, Swartz</i>	66	<i>Panicum, Linn.</i>	63
<i>Lycopanthus</i>	59	<i>Parmelia, Ach.</i>	82
		<i>Parmelia, Ach.</i>	82

	Page.		Page.
<i>Pannaria, Delise</i>	82	<i>Pycnarrhena, Miers.</i>	6
<i>Panax</i>	31	<i>Pyrenula</i>	89
<i>Panus, Fries</i>	98	<i>Pyrola</i>	38
<i>Parasol Mushroom</i>	93	<i>Pyxine, Fries</i>	82
<i>Paspalum</i>	127		
<i>Patellaria</i>	83		
<i>Paxillus, Fries</i>	96	<i>Radula, Nees.</i>	78
<i>Penicillus, Lamx.</i>	147	<i>Radulum, Fries</i>	115
<i>Peniophora, Cooke</i>	117	<i>Ræstelia, Rebert.</i>	125
<i>Pennantia, Forst.</i>	12	<i>Ramalina, Ach.</i>	79
<i>Pentapanax, Seem.</i>	31	<i>Reboulia, Nees.</i>	78
<i>Periconia, Tode</i>	144	<i>Rhizogonium, Brid.</i>	69
<i>Persea, Gartn.</i>	51	<i>Rhizomorpha, Ach.</i>	145
<i>Pertusaria, DC.</i>	85	<i>Rhodamnia</i>	27
<i>Pestalozzia, De Not.</i>	139	<i>Rhododendron, Linn.</i>	39
<i>Petalostyles, R. Br.</i>	19	<i>Rhodomyrtus</i>	27
<i>Peziza, Dill.</i>	128	<i>Rhopalopsis, Cooke</i>	132
<i>Phallus, Linn.</i>	120	<i>Rhynchostegium, Schimper</i>	73
<i>Phellorina, Berk.</i>	121	<i>Rhytidhysterium, Speg.</i>	130
<i>Phillipsia, Berk.</i>	129	<i>Rhytisma, Fries</i>	133
<i>Phlebia, Fries</i>	115	<i>Ricasolia, De Not.</i>	81
<i>Phlyctæna, Desm.</i>	137	<i>Riccia, Mich.</i>	78
<i>Phoma, Fries</i>	137	<i>Ricinocarpus, Desf.</i>	54
<i>Phragmicoma, Du Mort.</i>	77	<i>Rinodinia</i>	84
<i>Phycomyces</i>	145	<i>Robillarda, Sacc.</i>	139
<i>Phyllachora, Nitsch.</i>	133	<i>Rumex</i>	125
<i>Phyllosticta, Pers.</i>	138	<i>Russula, Fries</i>	97
<i>Physalospora, Niessl.</i>	135		
<i>Physarum, Pers.</i>	124		
<i>Physcia, Nyl.</i>	82	<i>Sarcophilus, R. Br.</i>	58
<i>Physotium, Nees.</i>	77	<i>Sargassum, Ag.</i>	146
<i>Pithecolobium, Mort.</i>	22	<i>Schizophyllum, Fries</i>	99
<i>Pimelea, Banks et Sol.</i>	53	<i>Scleroderma</i>	121
<i>Placodium, DC.</i>	83	<i>Scleroderma, Fries</i>	123
<i>Plagischasma, Lehm. et Lindb.</i>	77	<i>Scolecotrichum, Kunze et Schm.</i>	145
<i>Plagioclitha, Nees. et Mont.</i>	77	<i>Scortechinia, Sacc.</i>	135
<i>Platysma, Hoffm.</i>	80	<i>Senna</i>	18
<i>Ploughman's Spikenard</i>	33	<i>Sepedonium, Link.</i>	144
<i>Poa, Linn.</i>	65	<i>Shepherd's Purse</i>	7
<i>Podaxon, Desv.</i>	120	<i>Sistotrema, Pers.</i>	115
<i>Pœcilophyllum, Mitt.</i>	68	<i>Solanum, Linn.</i>	42
<i>Pogonatherum, Beauv.</i>	64	<i>Sonneratia, Linn. f.</i>	27
<i>Polanisia</i>	8	<i>Sorosporium, Rud.</i>	127
<i>Polyporus, Fries</i>	99	<i>Spartolhammus, A. Cunn.</i>	47
<i>Polysaccum, Fries</i>	122	<i>Spergula, Linn.</i>	8
<i>Polysiphonia, Grev.</i>	146	<i>Sphærella, De Not.</i>	135
<i>Polystictus, Fries</i>	107	<i>Sphæria, Hill</i>	135
<i>Polytrichadelphus, C. Muell.</i>	73	<i>Sphæropsis, Lév.</i>	138
<i>Pomaderris, Labill.</i>	15	<i>Sphærostilbe, Tul.</i>	131
<i>Poria, Pers.</i>	111	<i>Sphærotheca, Lév.</i>	137
<i>Poronia, Fries</i>	132	<i>Spider Flower</i>	8
<i>Porotrichum, Brid.</i>	71	<i>Spiræanthemum, A. Gray</i>	22
<i>Potamogeton, Linn.</i>	62	<i>Splachnobryum</i>	70
<i>Prickly Lettuce</i>	35	<i>Splitgerbera</i>	55
<i>Pseudopyrenula</i>	89	<i>Sporocye</i>	144
<i>Psidium, Linn.</i>	26	<i>Sporotrichum, Link.</i>	141
<i>Psoralea, Linn.</i>	17	<i>Spumaria, Fries</i>	124
<i>Psora</i>	87	<i>Stemodia, Linn.</i>	43
<i>Psoroma, Fries</i>	83	<i>Stemphylium</i>	126
<i>Pterigeron, DC.</i>	34	<i>Stemonitis, Gled.</i>	124
<i>Pterobryum, Hornsch.</i>	70	<i>Stereocaulon, Schreb.</i>	79
<i>Ptilotus, R. Br.</i>	49	<i>Stereum, Fries</i>	116
<i>Ptychanthus</i>	78	<i>Sticta, Ach.</i>	80
<i>Puccinia, Pers.</i>	125	<i>Stictina, Nyl.</i>	81

INDEX.

153

	Page.		Page.
<i>Stictia</i> , Pers.	129	<i>Tubulina</i> , Pers.	124
<i>Stilbum</i> , Tode	140	<i>Tulostoma</i> , Bull.	121
<i>Strobilomyces</i> , Berk.	99	<i>Tympanis</i> , Tode	129
<i>Stuart's Scrub Wattle</i>	21		
<i>Styloidium</i> , Sw.	36		
<i>Syncolella</i>	143		
		<i>Uredo</i>	126
<i>Tarrietia</i> , Blume	10	<i>Uredo</i> , Lév.	127
<i>Teucrium</i> , Linn.	48	<i>Urocystis</i>	126
<i>Thapsi</i>	7	<i>Uromyces</i> , Lév.	126
<i>Thecaphora</i> , Fing.	127	<i>Usnea</i>	79
<i>Thelephora</i> , Eheb.	116	<i>Ustilago</i> , Lamk.	127
<i>Thelotrema</i> , Ach.	86		
<i>Thozetia</i> , Berk. et F. v. M.	142	<i>Vallisneria</i> , Linn.	56
<i>Thuidium</i> , Schimper	73	<i>Valonia</i> , Ag.	147
<i>Thysanotus</i> , R. Br.	60	<i>Valsa</i> , Fries	134
<i>Tilletia</i> , Tul.	127	<i>Verrucaria</i> , Pers.	90
<i>Tilmadoche</i> , Fries	124	<i>Villaresia</i> , Ruiz et Pav.	13
<i>Torula</i> , Link.	144	<i>Virgasporium</i>	142
<i>Trametes</i> , Fries	112		
<i>Tremella</i> , Fries	119	<i>Willow Mushroom</i>	95
<i>Tremotylum</i>	90	<i>Wong-arrah</i>	21
<i>Trichinium</i> , R. Br.	49		
<i>Trichobasis</i>	126		
<i>Trichosphaeria</i>	135	<i>Xanthorrhæa</i> , Sm.	61
<i>Trichoderma</i> , Pers.	144	<i>Xanthostemon</i> , F. v. M.	25
<i>Trichomanes</i> , Linn.	67	<i>Xerotus</i> , Fries	98
<i>Trigonella</i> , Linn.	17	<i>Xylaria</i> , Schr.	132
<i>Tristania</i> , R. Br.	25	<i>Xylostroma</i> , Botr.	145
<i>Triumfetta</i> , Linn.	11		
<i>Troglia</i> , Fries	98		
<i>Tryblidiella</i> , Sacc.	130	<i>Zieria</i> , Sm.	12
<i>Tubercularia</i> , Tode	141	<i>Zygophyllum</i> , Linn.	11

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A SYNOPSIS
OF
THE QUEENSLAND FLORA;

CONTAINING BOTH THE
PHÆNOGAMOUS AND CRYPTOGAMOUS PLANTS.

BY
FREDK. MANSON BAILEY, F.L.S.,
COLONIAL BOTANIST.

THIRD SUPPLEMENT.

BRISBANE:
JAMES C. BEAL, GOVERNMENT PRINTER, WILLIAM STREET
1890.

PREFACE.

I GLADLY take this opportunity of thanking my numerous correspondents residing in the more or less unsettled parts of the Colony for the specimens of native plants they from time to time have forwarded to me. By this means the range of species becomes known, and new plants are often discovered.

The present Supplement will be found of more than ordinary interest from the large number of new species recorded—about one hundred in all. This addition to the Flora has been caused by the comparatively large number of new plants collected by the Bellenden-Ker Expedition.

In the Second Systematic Census of Australian Plants, just issued by Baron von Mueller, of Melbourne, I find a large number of plants recorded as occurring in Queensland which have not been noticed in the former parts of the Synopsis of the Queensland Flora; I have therefore given them with full descriptions in the present Supplement, thus completing an account of the Flora of the Colony up to the present time.

I would also remind persons living in the remote country districts that they would greatly help the work of recording the plants indigenous to Queensland by forwarding to me per post small flowering or fruiting shoots of such plants. At all times I shall be pleased to name the plants so sent, if required, in which cases each specimen should bear a number; the corresponding number to which should be retained by the sender.

F. M. B.

May, 1890.

THIRD SUPPLEMENT

TO THE

SYNOPSIS OF THE QUEENSLAND FLORA.

Class I. DICOTYLEDONS.

SUBCLASS POLYPETALÆ.—SERIES THALAMIFLORÆ.

ALLIANCE RANALES.

Order DILLENIACEÆ.

TRIBE HIBBERTIÆ.

HIBBERTIA.

SECTION EUHIBBERTIA.

H. velutina, *R. Br.*, Fl. Austr. i. 30. Shrub, all parts clothed with a whitish velvety tomentum; height 4 to 5 ft., and spreading; branches prominently angled. Leaves oblong-ovate, 1 to nearly 2 in. long, 3 to 7 lines broad, much tapering towards a petiole of about a line long; midrib very prominent, lateral veins patent and distinct, margins recurved. Peduncles axillary near the ends of the branches, flattened, $\frac{1}{2}$ to $\frac{3}{4}$ in. long, with a narrow bract close under the calyx. Sepals 3 or 4 lines long, outer ones acute, inner ones obtuse, and wider. Petals broadly obovate, about $\frac{1}{2}$ -in. long. Stamens numerous. Carpels 3, at first silky then rather echinate, 2-ovulate.

Hab.: On summit of Mount Harold, off Tringilburra Creek, and Walsh's Pyramid, Mulgrave River.

Order ANONACEÆ.

TRIBE UVARIÆ.

Uvaria heteropetala, *F. v. M.*, in Muell. 2nd Syst. Cens. Austr. Pl. 5, is given as *Fitzalania heteropetala*, *F. v. M.*

TRIBE UNONEÆ.

Unona Ancana, *F. v. M.*, in Muell. 2nd Syst. Cens. Austr. Pl. 5, is given as *Ancana stenopetala*, *F. v. M.*

POLYALTHIA, Blume.

P. Armitiana, *F. v. M.*, in Austr. Journ. of Pharm. Jan. 1887, 2nd Syst. Cens. Austr. Pl. 5.

I can find no description of this plant in the Journal of Pharmacy above quoted. After the description of *Mitrephora Froggattii* Baron Mueller says:—"Mr. Armit's collection from tributaries of the Gilbert River contains an Anonaceous plant possibly conspecific with the one just described; but the lateral nerves of the leaves are thinner, more approximated, and less curved, while the fruits are not unlike those of *Polyalthia Holtzeana*, but seem not provided with a conspicuous stipes; the flowers of Armit's plant are unknown. It has meanwhile been specifically designated under the discoverer's name."

Order MENISPERMACEÆ.

TRIBE COCCULEÆ.

TRISTICHOCALYX, *F. v. M.*

T. diffusus, *Miers*, contrib. to Bot. iii. 286.

Cocculus Selwynii, *F. v. M.*, in Muell. 2nd Syst. Cens. Austr. Pl. 7, is given as *Hypserpa Selwynii*, *F. v. M.*

TRIBE PACHYGONEÆ.

Tinospora Hullsii, *F. v. M.*, in Muell. 2nd Syst. Cens. Austr. Pl. 8, is given as *Pachygone Hullsii*, *F. v. M.*

ALLIANCE PARIETALES.

Order CRUCIFERÆ.

TRIBE LEPIDINEÆ.

CAPSELLA, Moench.

C. humistrata, *F. v. M.*, Fragm. xi. 25. An annual plant of under 2 in., the leaves divided into linear-lanceolate lobes. Racemes 1 to 4 in. long, flowers numerous; pedicels spreading, without bracts. Sepals ovate or oblong. Petals greenish-yellow, about 1 line long, entire. Stamens, filaments free, subulate-linear; anthers yellow, almost rotund, introrse. Pod $1\frac{1}{2}$ to 2 lines long; seeds rotundo-ovate.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 10.

Order CAPPARIDÆÆ.

TRIBE CLEOMEÆ.

GYNANDROPSIS, DC.

G. Muelleri, *Benth.*, Fl. Austr. i. 91. An erect annual covered with a glandular viscid pubescence. Leaflets 3 to 5, lanceolate or oblong-linear, those of the upper leaves $\frac{1}{2}$ to 1 in. long on a long petiole.

Flowers yellow, on short pedicels in the upper axils, forming a terminal leafy raceme. Sepals $\frac{1}{2}$ to near 1 in. long, narrow, acuminate, unequal. Petals fully 3 in. long, oblong, narrowed into a long claw. Stamens 5 to 7, the stipes or elongated torus often $1\frac{1}{2}$ in. long. Capsule linear, 2 to $2\frac{1}{2}$ in. long, not striate, but rough with short glandular hairs, terminated by a slender style of nearly 1 in.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 8.

ALLIANCE CARYOPHYLLINÆ.

Order PORTULACEÆ.

CALANDRINIA, H. B. and K.

C. polyandra, *Benth.*, Fl. Austr. i. 172. An annual with decumbent or ascending branches of 6 to 12 in. Leaves few, chiefly in the lower part of the stem, thick and fleshy, the lowest broadly linear or almost spatulate, the upper ones narrow-linear, occasionally almost opposite, mostly 1 to $1\frac{1}{2}$ in. long. Flowers of a red-purple, rather large, few together in a terminal raceme, the pedicels 1 in. or more. Bracts small and scarious. Sepals very broad, rather obtuse, thin and slightly coloured, with scarcely prominent veins. Petals narrow-obovate, about $\frac{1}{2}$ -in. long. Stamens very numerous, irregularly united at the base; anthers short. Style divided to the base into 3 linear stigmatic branches. Capsule ovoid or oblong, 3-valved. Seeds very numerous and small, black, minutely pitted.—*Benth.*, *l.c.*

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 45.

ALLIANCE GUTTIFERALES.

Order ELATINEÆ.

BERGIA, Linn.

B. perennis, *F. v. M.*, Fl. Austr. i. 181. Stems prostrate, woody, tortuous, with very short leafy branches, glabrous or with a very few short hairs. Leaves from ovate to elliptical-oblong, mostly 3 to 4 lines long, rather rigid, glabrous and glaucous, often ciliate towards the base and narrowed into a short petiole. Stigmas lanceolate, ciliate. Flowers usually 5-merous, on solitary pedicels, rarely exceeding the length of the leaves. Sepals broadly lanceolate, keeled, with scarious margins, nearly 2 lines long. Petals longer, rather narrow. Stamens usually 10, the 5 outer filaments dilated, especially below the middle. Styles filiform. Capsule rather shorter than the calyx, the valves leaving much of the dissepiments attached to the central column. Seeds oblong, curved, slightly furrowed and transversely wrinkled like those of *Elatine*.—*Benth.*, *l.c.*

Hab.: Swamps, Gulf country.

Order GUTTIFERÆ.

TRIBE GARCINIEÆ.

GARCINIA, Linn.

(Name in honour of Laurence Garcin, M.D., a French botanist.)

Flowers polygamous or diceious. Sepals 4, in opposite pairs. Petals 4 or 5. Male flowers: Stamens indefinite, free, tetradelphous or monadelphous; anthers erect or peltate, dehiscing longitudinally or circumscissile. Female or hermaphrodite flowers: Staminodia various, free or united; ovary 2 or many-celled; stigmas sessile, lobed, smooth or tuberculate; ovules solitary. Fruit a berry; embryo an undivided thick radicle (tigella*). Glabrous trees usually with a yellow juice. Leaves coriaceous or submembranous, opposite, or ternately verticillate. Flowers solitary, fascicled or subpaniculate, axillary or terminal.—*Oliver* in Fl. Trop. Africa.

G. Mestoni (n. sp.) Meston's Mangosteen. (After A. Meston, the leader of the expedition to Bellenden-Ker.) An erect, slender, graceful tree of 20 or more feet; branches drooping. Leaves glossy dark-green, opposite, narrow-lanceolate, the points much elongated, 2 or 3 in. long, somewhat wavy but with entire edges; petioles slender, $\frac{1}{2}$ -in. or more long. Flowers (only a few very early buds seen, and these much injured by insects) probably small, either terminal or leaf-opposed, nearly sessile, with a few small bracts at the base. Sepals 4, small, imbricate. Petals white, and seem to be hairy. Fruit depressed-globular, a pleasing green, 2 in. diameter, but not fully grown, 8-celled. Seeds somewhat rugose. Stigmatic lobes 8, closely sessile on the fruit; the sepals closely appressed, persistent under the fruit, and probably not much enlarged.

Hab.: Bellenden-Ker Range, at an altitude of 2,000 feet.

Fruit of this tree were gathered in the ripe state by Messrs. Meston and Whelan on their first ascent of Bellenden-Ker, and they describe the fruit as possessing a sharp, pleasant, acid flavour and very juicy, about 3 in. in diameter.

ALLIANCE MALVALES.

Order MALVACÆ.

TRIBE MALVEÆ.

SIDA, Linn.

S. intricata, *F. v. M.* in Trans. Phil. Soc. Vict. i. 19; Fl. Austr. i. 193. A slender, much-branched, tomentose undershrub, resembling some of the forms of *S. corrugata*, with cordate-ovate leaves. Flowers small on short slender pedicels, the fruits not above 2 lines diameter, consisting of 5 to 8 tomentose carpels, not furrowed at their points, and smooth or only very slightly wrinkled on the back.—*Flora Austr. i. 193.*

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 24.

* A latinised word from the French *tigelle*, diminutive of *tige*, a stem; the portion of the embryo between the radicle and cotyledons.

TRIBE HIBISCEÆ.

HIBISCUS, Linn.

H. Notho-Manihot, *F. v. M.*, *Fragm.* v. 57, ix. 130. A tall shrub. Leaves palmately divided into from 5 to 7 lanceolate, acuminate, irregularly toothed lobes, the larger ones about 6 in. long and $\frac{1}{2}$ to 1 in. broad; petioles 1 to $3\frac{1}{2}$ in. long, glabrous. Stipules 3 or 4 lines long, caducous, linear-subulate. Pedicels axillary; involucre bracts 5 or 6, lanceolate, acute, slightly pilose. Calyx silky inside, bilabiate, the apex of the lips with 2 or 3 short teeth or entire. Corolla white with a reddish centre, about 2 in. long, staminal column about 1 in.; anthers yellow. Capsule globose-ovate.—From *Fragm.*, l.c.

Hab.: Rockingham Bay.

H. panduriformis, *Burm.*, *Fl. Ind.* 151, t. 47, f. 2; *Fl. Austr.* i. 215. A tall coarse herb or shrub densely covered with a tomentum, usually thick and velvety on the upper side of the leaves, closer and whiter on the under side and on the petioles and branches, where it is often intermixed with long, spreading, bristly, stellate hairs. Leaves broad-cordate, 3 or 4 in. long and broad, or rarely narrow, usually 5-angled or broadly lobed and irregularly crenate. Flowers yellow, on very short pedicels in the axils of the upper reduced leaves, the side branches often assuming the appearance of several-flowered peduncles. Bracteoles 6 to 8, linear or linear-spathulate, often as long as the calyx, more herbaceous than in most species and always dilated above the middle. Calyx 7 to 9 lines long, densely tomentose-hirsute, the lobes lanceolate, 1-nerved. Petals 1 to 2 in. long, densely hirsute where exposed in the bud. Capsule ovoid-globular, very hispid. Seeds shortly pubescent or rarely glabrous.—*Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in *Muell. 2nd Syst. Cens. Austr. Pl.* 25.

Order STERCULIACEÆ.

TRIBE STERCULIÆ.

STERCULIA, Linn.

S. caudata, *Heward* in *Herb. Cunn. Fl. Austr.* i. 230. A tree, quite glabrous except the flowers. Leaves ovate-cordate, entire, long, acuminate, mostly 3 or 4 in. long, the veins more transverse than in any other species, some occasionally narrow-oblong or linear. Flowers rather small in short axillary panicles, the rhachis and pedicels quite glabrous. Calyx broadly campanulate, deeply lobed, 6 to 7 lines diameter when fully out, very tomentose outside, pubescent inside especially at the bottom, but without appendages. Staminal column slender in the males, short in the females, pubescent at the base. Ovary very tomentose. Follicles glabrous, ovoid, rather large and thick, almost sessile.—*Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in *Muell. 2nd Syst. Cens. Austr. Pl.* 27.

TRIBE BUETTNERIÆ.

COMMERSONIA, Forst.

C. Fraseri, *J. Gay* in *Mem. Mus. Par.* x. 215, t. 15; *Fl. Austr.* i. 242. A tall shrub, with tomentose or hirsute branches. Leaves cordate-ovate, acuminate, 3 to 6 in. long, irregularly toothed, often oblique at the base, glabrous or slightly pubescent above, white-tomentose or softly hirsute underneath, the lower ones in the young plants broad and 3 or 5-lobed. Cymes loosely dichotomous, many-flowered, but shorter than the leaves. Calyx tomentose, fully 3 lines diameter, the lobes acute. Petals with a very short broad concave base, the ligula oblong-spathulate, nearly as long as the calyx. Staminodia linear-spathulate, as long as the petals, the central one of each three rather broader and lanceolate at the base, the lateral ones filiform at the base and shortly adnate to the central one; anther-bearing filaments very short. Capsule large, densely beset with soft villous setæ.—*Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in *Muell. 2nd Syst. Cens. Austr. Fl.* 28.

Order TILIACEÆ.

TRIBE TILIÆ.

CORCHORUS, Linn.

C. hygrophilus, *A. Cunn.*, *Fl. Austr.* i. 276. A tall erect glabrous herb. Leaves petiolate, ovate or ovate-lanceolate, acuminate, 3 to 5 in. long, acutely and irregularly toothed. Cymes several-flowered, reflexed, shortly pedunculate, but rarely equalling the petioles. Flowers small, the buds obovoid, contracted at the base. Petals the length of the calyx. Stamens numerous on a raised torus. Capsule globular or ovoid-oblong, very obtuse, 2 to 4 lines long, more or less tuberculate, 2 or 3-celled. Seeds 8 or more in 2 rows in each cell, without transverse partitions.—*Fl. Austr.*, l.c.

Hab.: Cleveland Bay.—*A. Cunn.*, l.c.

C. tomentellus, *F. v. M.*, *Fragm.* iii. 10; *Fl. Austr.* i. 278. A low, diffuse, stellate-tomentose shrub or undershrub. Leaves petiolate, from ovate to ovate-oblong, obtuse, $\frac{1}{2}$ to 1 in. long, crenate, slightly plicate and rugose, rather loosely stellate-tomentose, especially underneath. Flowers pedicellate, in nearly sessile clusters; bud obovoid. Sepals 3 or 4 lines long. Stamens numerous, the torus expanded into a prominent disk round their base. Capsule very slender, tomentose, $\frac{1}{2}$ to $\frac{3}{4}$ in. long, 3-valved, with few distant seeds, but scarcely contracted between them.—*Fl. Austr.*, l.c.

Hab.: Mackenzie River.—*F. v. M.*, l.c.

TRIBE ELÆOCARPEÆ.

ARISTOTELIA, L'Herit.

A. australasica, *F. v. M.*, *Fragm.* ii. 79, viii. 2; *Fl. Austr.* i. 280. A slender shrub, with a few soft hairs on the branches, petioles,

and principal veins on the under side of the leaves, otherwise glabrous. Leaves opposite on slender petioles, ovate, acuminate, 2 or 3 in. long, serrate, 3-nerved at the base. Peduncles usually axillary, 1 to 3-flowered, about 2 in. long. Pedicels short, with 2 narrow-linear bracteoles at the base, about $\frac{1}{2}$ -line long. Sepals 5, oval-oblong, about 2 lines long, with woolly ciliate margins. Petals about 3 lines long, obovate-cuneate, the apex 3-lobed, glabrous. Stamens 12 to 16; anther yellow, pointless, narrow-oblong, opening by short slit at the top. Ovary nearly glabrous. Style slender. Stigma minute. Berry globular, about 4 lines in diameter.—*F. v. M., l.c.*

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 30.

SERIES DISCIFLORÆ.—ALLIANCE GERANIALES.

Order ZYGOPHYLLÆ.

ZYGOPHYLLUM, Linn.

Z. crenatum, *F. v. M.* in Linnæa xxv. 374, and Pl. Vict. 103, t. 6. Annual, small. Leaves with broad cuneate leaflets irregularly 2 or 3-lobed or deeply crenate at the end, on dilated petioles. Flowers rather small. Stamens 8. Fruit almost oval in outline, splitting loculicidally. Seeds numerous.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 22.

This species or form is reduced in Flora Austr. i. 293 to var. *lobulatum* of *Z. glaucescens*, *F. v. M.*; but Baron Mueller, in his recent work on the plants of Victoria, retains it as above.

Order RUTACEÆ.

TRIBE BORONIEÆ.

PHEBALIUM, A. Juss.

P. Billardieri, *A. Juss.* in Mem. Soc. Hist. Nat. Par. ii. 134; Fl. Austr. i. 344. An erect shrub or small tree, the branches angular and clothed with small brown scurfy scales. Leaves oblong, lanceolate or linear, obtuse or acute, rarely under $\frac{1}{2}$ -in. and often 3 in., or in very luxuriant specimens 4 or 5 in. long, entire, coriaceous, flat or with recurved margins, glabrous above, silvery-white underneath with minute scales. Flowers in axillary corymbs, shortly pedunculate, but always shorter than the leaves. Peduncles and pedicels thick and scaly. Calyx small-lobed. Petals about 2 lines long, glabrous, slightly imbricate, with inflexed tips. Stamens exserted, filaments often hairy in the lower portion. Ovary glabrous. Cocci small, broad, with a very short beak. Seeds shining.—*Fl. Austr., l.c.*

Hab.: Fraser Island.—*H. Tryon.*

TRIBE ZANTHOXYLÆ.

MELICOPE, Forst.

M. chooreechillum (n. sp.) (Aboriginal name for Bartle Frere.) A large shrub or small tree, glabrous, branches thick. Leaves

opposite, of unequal size in each pair. Petioles 1 to $2\frac{1}{2}$ in. long, sulcate on the upper side. Leaflets 3, obovate, tapering from a broad emarginate end to the top of the petiole, $1\frac{1}{2}$ to 3 in. long, $\frac{3}{4}$ to $1\frac{1}{4}$ in. broad, of a thick cartilaginous or coriaceous texture; veins faint in the fresh leaf, but prominent in the dried specimens, the primary ones anastomosing far within the margin, the under surface closely covered with small dots (oil-dots). Flowers in short trichotomous panicles, length of the petioles, pedicellate. Sepals 4, obtuse, minute. Petals 4, about 4 lines long, linear, white, thick, the apex incurved. Stamens 8; filaments broad at the base, very nearly glabrous. Anthers oblong-rotund. Disk a yellow ring. Ovary glabrous, 4-celled. Style hairy on the lower half. Stigma shortly 4-lobed.

Hab.: Summit of Bartle Frere. In some respects this fresh species is allied to *Evodia Fareana*, F. v. M.

TRIBE AURANTIEÆ.

CITRUS, Linn.

C. inodora (n. sp.) North Queensland Lime. (Named from the flowers wanting fragrance.) A tall shrub; the young branches flattened or more or less angular as in the common orange. Spines not very numerous, about $\frac{1}{4}$ -in. long, erect, 1 or 2 at the axils of the leaf. Leaves lanceolate or ovate-lanceolate, with distant sinuous crenations, 3 to 7 in. long, $1\frac{1}{2}$ to 2 in. broad in the centre, the apex often elongated, and tapering towards the base to a very short petiole seldom exceeding $\frac{1}{4}$ -in. in length; substance coriaceous; midrib and primary veins more or less prominent, the latter rather close and anastomosing in an intramarginal vein. Flowers axillary, nearly sessile, and, so far as observed, scentless. Calyx of 5 minute teeth. Petals 5, about 3 lines long, spreading. Stamens free, over 30, of irregular length, shorter than the petals. Ovary, with style, scarcely exceeding a line in length. Fruit oblong, $2\frac{1}{2}$ in. long, $1\frac{1}{4}$ in. diameter, showing 8 obtuse ribs, the divisions of the fruit; pulp a sharp agreeable acid. Seeds oval, somewhat flattened on one side, convex on the other, 3 lines long, 2 lines broad; testa white.

Hab.: Harvey's Creek, Russell River.

This new species of *Citrus* is well worthy of cultivation for its fruit, which is juicy, and of equal flavour with the West Indian Lime. In general appearance the tree resembles the orange, having the same dark-green foliage. I have chosen the specific name on account of all the flowers gathered being wanting in fragrance, a remarkable feature in a genus so noted for scented flowers.

Order SIMARUBEÆ.

TRIBE SIMARUBEÆ.

HYPTIANDRA, Hook.

H. Bidwilli, Hook. Var. *grandiuscula*, Bail. and F. v. M. An erect tree of about 20 ft. Leaves lanceolate, coriaceous, often 9

in. long, and 2 in. broad in the middle, much tapering to short thick petioles, the leaves on young plants very much larger, midrib and veins prominent. Inflorescence terminal or in the upper leafless axils, the shoot ultimately growing out. Peduncles about 3 in. long, forked at the end and sometimes the branches again shortly forked and bearing 2 or 3 pedicellate pink flowers. Calyx-lobes or sepals 5, about $\frac{1}{2}$ -line long, thick and obtuse. Corolla of 5 oblong boat-shaped petals 5 lines long, 1 line broad, caducous. Stamens glabrous except at the lower part where the filaments are broad and adhere together by woolly hairs; anthers versatile. Ovary glabrous, 5-celled or 5 carpels. Style slender, stigma minute.

Hab.: Bellenden-Ker, at an altitude of 4,000 feet.

GANOPHYLLUM, Blume.

Flowers polygamo-dioecious. Male: Calyx small, cup-like, 5-fid, valvate, no petals; stamens 5 to 7, inserted between the lobes of the disk, and alternate with the lobes of the calyx; filaments filiform, exserted; anthers oblong; disk annular, puberulous, 5-lobed; ovary rudimentary. Female: Stamens 5, very short, alternate with the calyx-lobes; anthers very small, ovate, sterile; style very short; stigma depresso-capitate, 2-lobed; ovary free, 2-celled. Drupe 1-celled, 1-seeded; rarely 2-celled, 2-seeded. Trees, the branchlets angular, foliage more or less covered with wax-like scales. Leaves alternate, imparipinnate; leaflets entire, falcate, many pairs. Flowers small, greenish, ebracteate, in axillary racemose panicles.—*B. et H.*, Gen. Pl., and *F. v. M.* Fragm.

Hab.: Philippines, New Guinea, and Australia.

G. falcatum, *Blume*, Mus. Bot. Sugd. i. 230; *F. v. M.* Fragm. vii. 24. A tree of about 30 ft. Leaves pinnate, petiole $\frac{1}{2}$ to 3 in. long, rhachis about 1 ft. long bearing about 14 lanceolate-ovate leaflets, obtuse or shortly acuminate, $1\frac{1}{2}$ to 3 in. long, 1 to $1\frac{1}{2}$ in. broad, entire. Panicle a few inches long. Calyx about 1 line long, teeth semilanceolate-deltoid, ciliate. Stamens 6 or 7; filaments 1 or 2 lines long, glabrous; anthers sulphureous. Style in female flowers glabrous. Drupe 6 to 8 lines long.—*F. v. M.*, Fragm. l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 44.

Order MELIACEÆ.

TRIBE TRICHILIEÆ.

SYNOUM, A. Juss.

S. Muelleri, *C. DC.* in Monogr. Phanerog. i. 593.

Hab.: Rockingham Bay.

Noticed in Fragm. v. and xi., but the full description not to hand.

ALLIANCE OLACALES.

Order OLACINEÆ.

TRIBE OLACEÆ.

OLAX, Linn.

O. aphylla, *R. Br.*, Prod.; Fl. Austr. i. 393. A shrub of several feet, with numerous wiry, virgate, slightly pubescent branches. Leaves all reduced to minute scales. Flowers very small, almost sessile in the axils of orbicular ciliate bracts, rather longer than the calyx, towards the ends of the branches. Petals scarcely more than 1 line long, densely bearded inside about the middle. Staminodia linear and entire, or slightly spatulate and emarginate at the top. Fruit ovoid, about 2 lines long.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 109.

TRIBE OPILIEÆ.

OPILIA, Roxb.

Calyx minute, 5 or rarely 4-toothed. Petals 5 rarely 4, hypogynous, valvate in the bud. Stamens as many, alternating with the petals, free; filaments filiform; anthers ovate. Disk of 5 rarely 4 scales, alternating with the stamens. Ovary 1-celled, tapering into a short, thick, truncate style; ovule solitary, suspended from a central filiform placenta very early adnate to it. Drupe with a thin sarcocarp and crustaceous endocarp. Seeds spuriously erect; embryo linear, short, or nearly as long as the albumen. Shrubs or small trees, sometimes climbing. Leaves alternate, entire. Flowers in axillary racemes; pedicels 3 together in the axils of peltate bracts, which are imbricate at an early stage, but fall off before the flowers expand.—Fl. Austr. i. 394.

O. amentacea, *Roxb.*, Pl. Corom. ii. 31, t. 158; Fl. Austr. i. 394. A scrambling half-climbing shrub or small weak tree, glabrous or the young leaves and shoots minutely tomentose-pubescent. Leaves petiolate, ovate, ovate-lanceolate, or almost oblong, acute or acuminate, 2 to 3 or even 4 in. long, or rarely shorter and very obtuse, entire, thinly coriaceous, the veins usually prominent though fine. Racemes before flowering resembling little cylindrical cones of $\frac{1}{2}$ -in., the peltate, imbricate, but almost squarrose bracts alone visible, when in flower slender, about 1 in. long without bracts. Flowers very small, on filiform pedicels of about 1 line. Petals about $\frac{1}{2}$ -line long, very deciduous. Drupe ovoid or globular, $\frac{1}{2}$ to $\frac{3}{4}$ in. long. Embryo linear, nearly as long as the albumen.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 109.

ALLIANCE CELASTRALES.

Order CELASTRINEÆ.

DENHAMIA, Meisn.

D. viridissima, *Bail. and F. v. M.* A small tree with dense head of dark-green foliage. Leaves alternate or nearly opposite, often

clustered at the ends of the branchlets, lanceolate, 3 or 4 in. long, 1 to $1\frac{1}{2}$ in. broad in the centre, tapering to a very short petiole, the apex more or less elongate, margins entire, green on both surfaces, and the reticulation more or less prominent. Flowers in terminal pedunculate cymes or racemes, but the tree only met with in early fruit. Capsules 3-valved, somewhat fusiform, prominently obtusely 3-angular, 1 to $1\frac{1}{2}$ in. long, bursting loculicidally, bearing the seeds on the prominently projecting placentas. Seeds 4 to 6 to each placenta, half enclosed in a rather large fleshy arillus.

Hab.: Bellenden-Ker.

Hedraleanthera porphyropetala, *F. v. M.*, should be placed in this order, not in MELIACEÆ, according to Muell. 2nd Syst. Cens. Austr. Pl. 40.

Order RHAMNEÆ.

TRIBE RHAMNEÆ.

DISCARIA, Hook.

(From *diskos*, a disc; the ovary being seated upon a broad disc.)

Calyx campanulate or tubular above the ovary, shortly 4 or 5-lobed. Petals hood-shaped, inserted with the stamens at the base of the calyx-lobes or none. Stamens 4 or 5, with short filaments, included in the petals when present. Disk annular in the base of the calyx-tube, the margin shortly free. Ovary more or less immersed in the disk, 3-lobed, 3-celled. Style slender, with a shortly 3-lobed stigma. Drupe or capsule coriaceous, 3-lobed, the endocarp separating into 3 2-valved crustaceous cocci. Seeds with a coriaceous testa; albumen fleshy; cotyledons orbicular. Much-branched rigid shrubs, with opposite often thorny branchlets. Leaves small, opposite, 1-nerved or penninerved. Stipules and bracts small. Flowers axillary.—*Flora Austr. i. 445.*

D. australis, *Hook.*, Bot. Misc. i. 157, t. 45. A scrubby, much-branched, thorny shrub of 1 to 2 ft., usually glabrous. Branches green, terete, the smaller ones reduced to stout spines of 1 to $1\frac{1}{2}$ in. Leaves often appearing clustered from the shortness of the shoots, oblong or cuneate, obtuse or emarginate, rarely exceeding $\frac{1}{2}$ in. Pedicels solitary or clustered in the axils of small leaves, which soon fall off from the very short branches, the flowers then appearing densely clustered under the spines. Calyx-tube broadly campanulate above the disk, the limb spreading to about 2 lines diameter. Petals narrow, hood-shaped. Ovary deeply immersed in the disk, the short free part 3-lobed. Fruit 2 to 3 lines diameter.—*Flora Austr. i. 445.*

Hab.: Eton Vale, Darling Downs.

TRIBE GOUANIEÆ.

GOUANIA, Linn.

G. australiana, *F. v. M.*, *Fragm. iv. 144.* Of this extensive tomentose climber, Baron Mueller, when describing the plant in *Fragm.*

iv. 144, had no fruit. The plants were in fruit in the Mulgrave River scrubs, so I may add to his description the following :—Fruit 3-winged, 3-celled, measuring (including the wings) about 4 lines diameter, tomentose like the rest of the plant, wings veined; seeds glossy, light-brown, a line long, showing about 3 blunt angles.

Hab. : Mulgrave River.

Order AMPELIDÆ.

VITIS, Linn.

V. tenuifolia, *W. and A.*, Prod. 129; *Hook.*, Fl. Brit. Ind. i. 660. (*V. japonica*, Thunb., Fl. Jap. 104; *Cissus japonica*, Willd.) Whole plant glabrous, stem slender. Petioles 2 to 4 in. long. Leaves pedately 5-foliolate, leaflets stalked, 1 to 3 in. long, $\frac{1}{2}$ to 2 in. broad, lanceolate or ovate-lanceolate, acute, sharply serrate. Tendrils short, slender, simple or forked. Cymes divaricating, dichotomous, bisexual, somewhat diffuse, axillary but often owing to the sudden suppression of the flower-bearing branch appearing terminal. Style short. Stigma large, subpeltate. Fruit the size of a pea, 1 to 4-seeded. Seed rounded and muricate on the back, sharply ridged on the face.—Fl. Brit. Ind., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 105, under *V. japonica*, Thunb.

LEEA, Linn.

L. Brunoniana, *Clarke* in Brit. Journ. Bot. x. 166. Nearly glabrous, upper leaves 2 or often 3-pinnate; leaflets elliptic, very shortly acuminate, primary nerves numerous, continued nearly to the margin, often setulose; corymbs glabrous. Australia, R. Br. n. 5272; Port Darwin, Schultz, n. 627. Called *L. sambucina* by Benth. (Fl. Austr. 1451), but not merely the colour of the flowers, but the nervation of the leaves, totally differs from *L. sambucina*, Willd. The present species is like a very handsome well-developed *L. rubra* or *L. setuligera*.—*Clarke*, l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 105.

ALLIANCE SAPINDALES.

Order SAPINDACÆ.

TRIBE SAPINDEÆ.

CUPANIA, Linn.

C. pleurophylla, *F. v. M.* in Vict. Nat. iii. 170; name only.

Hab. : Bellenden-Ker.—*F. v. M.*, l.c.

RATONIA, DC.

R. exangulata, *F. v. M.*, Fragm. iv. 156, ix. 91. A tall shrub or small tree. Wood hard, reddish; branches, petioles, and inflorescence

ferruginous. Leaflets 2 to 6, ovate, ovate-lanceolate, attaining 8 in. in length and $3\frac{1}{4}$ in. in breadth, on petioles of from 3 to 9 in. long; upper surface glabrous, pilose on the under side. Panicle raceme-like, from a few to several inches in length. Bracts tomentose, subulate-semilanceolate, about 1 line long. Petals minute, bearded. Capsule not distinctly ribbed or regularly valvate. Seed ovate, $\frac{1}{2}$ -in. long; testa smooth, brown.

Hab.: Hinchinbrook Island.—*F. v. M.*, *Fragm.* ix. 91.

NEPHELIUM, Linn.

N. semicinerum, *F. v. M.*, *Fragm.* iv. 158; name only.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 42.

HARPULLIA, Roxb.

H. frutescens (n. sp.) A slender usually single-stemmed shrub, so far as observed never attaining more than 5 feet, slightly rusty-pubescent. Leaf-rhachis prominently winged to the base, and extending beyond the last pinnæ; pinnæ nearly opposite, sessile, lanceolate, with attenuated points, 4 to 8 in. long, $1\frac{1}{2}$ to $2\frac{1}{2}$ in. wide in the centre, membranous, of a dark green and always quite entire. Inflorescence a terminal erect panicle with but a few short branches near the base, the female or hermaphrodite flowers near the base, the end or upper ones male, white and fragrant, on short pedicels; sepals imbricate, 4 or 5, linear-obtuse, 3 or 4 lines long, rusty-tomentose. Petals 4, lanceolate; 6 or 7 lines long, recurved. Stamens 7 or 8, nearly as long as the petals, surrounded by a ring of short, erect, obtuse glands. Capsule 2 or 3-celled, forming spreading lobes $1\frac{1}{2}$ in. wide and 1 in. deep, the outside clothed with a deep crimson tomentum, 2 seeds in each cell, enveloped in a cup-shaped yellow arillus.

Hab.: Bellenden-Ker, at an altitude of over 2,000 feet, and very frequently met with in the scrubs bordering the rivers on the lower lands of the district. In *Fragm.* ix. 89, July, 1875, Baron von Mueller notices a plant, probably this, as occurring at Rockingham Bay, as *H. alata*, *F. v. M.*, having entire leaflets and flowering as a shrub. I have, however, during my recent visit to Bellenden-Ker, made a point of hunting for any plant of the species with serrated leaflets, or that attains the size of even a large shrub, and having failed, think it better to give this Northern plant specific rank.

Order ANACARDIACEÆ.

BLEPHAROCARYA, *F. v. M.*

B. involucrigeria, *F. v. M.*, *Fragm.* xi. 16. In 2nd Syst. Cens. Austr. Pl., Baron Mueller removes this from SAPINDACEÆ to this Order.

SERIES CALYCIFLORÆ.—ALLIANCE ROSALES.

Order LEGUMINOSÆ.

SUBORDER PAPILIONACEÆ.—TRIBE GENISTEÆ.

MIRBELIA, Sm.

M. oxyclada, *F. v. M.*, *Fragm.* iv. 12 ; *Fl. Austr.* ii. 38. A rigid leafless shrub, the branchlets usually spinescent. Leaves replaced by minute scales. Flowers unknown. Fruiting pedicels short, solitary, or in pairs along the branches. Pods shortly stipitate, ovoid, turgid, but with prominent sutures and acuminate with the rigid persistent base of the style, 2 to 3 lines long, imperfectly divided into 2 cells by an incomplete dissepiment, the sutures persisting as a replum after the valves have fallen. Seeds 1 in each cell, not strophiolate.—*Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in *Muell. 2nd Syst. Cens. Austr. Pl.* 59.

PULTENÆA, Sm.

P. flexilis, *Sm.* in *Ann. Bot.* i. 502, in *Trans. Linn. Soc.* ix. 248 ; *Fl. Austr.* ii. 135. A shrub, either quite glabrous or with a few appressed hairs on the young shoots and back of the leaves. Leaves linear or linear-oblong, often slightly cuneate, obtuse or mucronate, $\frac{1}{2}$ to 1 in. long, flat or concave, the under side dark-coloured, with a prominent midrib. Stipules very small. Flowers solitary in the upper axils, shortly pedicellate. Bracteoles inserted on the calyx near its base, small, lanceolate. Calyx glabrous or slightly ciliate, about 2 lines long; lobes rather broad, acute, shorter than the tube, the 2 upper ones broader and falcate. Standard fully twice as long as the calyx, lower petals not much shorter. Ovary with a few long hairs at the top; style dilated downwards. Pod obliquely ovate or ovate-oblong, turgid, about 3 lines long.

P. fl. var. mucronata. Leaves narrow, with fine pungent points.

Hab.: Hills about Helidon.

TRIBE GENISTEÆ.

TEMPLETONIA, R. Br.

T. Hookeri, *Benth.*, *Fl. Austr.* ii. 170. (*Nematophyllum Hookeri*, *F. v. M.* in *Hook. Kew Journ.* ix. 20). A tall slender shrub with erect branches, glabrous or slightly pubescent. Leaves rather crowded, linear-terete or almost filiform with a short recurved point, 1 to 3 in. long or even more, glabrous, usually articulate near the middle, showing that the lower portion is a petiole, with which the leaflet is occasionally continuous; stipules minute. Pedicels filiform, often 1 in. long, with small bracteoles near the top. Calyx 5 or 6 lines long, the 4 lobes acuminate, longer than the tube, the uppermost with an inflexed point, the lateral ones shorter, the lowest considerably the longest.

Petal-claws short. Standard broad, 6 or 7 lines long; keel about as long, wings much smaller. Ovary stipitate, with about 6 ovules. Pod $\frac{1}{2}$ to above 1 in. long and about 4 lines broad, on a stipes longer than the calyx, oblique when young, but scarcely so when full-grown; valves coriaceous, slightly convex.—Fl. Austr. ii. 170.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 66.

TRIBE GALEGEÆ.

INDIGOFERA, Linn.

I. argentea, Linn., DC. Prod. ii. 224; Hook. in Fl. Brit. Ind. ii. 98. A shrub several feet high, with sulcate branches. Leaves 1 to 2 in. long; leaflets opposite, subcoriaceous, persistently argenteous, $\frac{1}{2}$ to 1 in. long, petioles $\frac{1}{2}$ -in.; stipules minute, setaceous. Racemes subsessile, 12 to 20-flowered, shorter than the leaves, $\frac{1}{2}$ to 1 in. long whilst in flower. Calyx $\frac{1}{2}$ -line, campanulate, argenteous; teeth deltoid, cuspidate, as long as tube. Corolla 2 lines long, reddish-yellow, externally canescent. Pod about $\frac{1}{2}$ -in. long, 2 lines broad, at first argenteous, finally glabrescent, distinctly torulose. The variety *caerulea*, with leaves 2 to 3 in. long, leaflets 7 to 9, less silvery than the type, with more elongated racemes, 1 to 2 in. long (the *I. tinctoria*, var. *brachycarpa*, DC., Prod. ii. 224), has been met with as a naturalised plant by Mr. J. Keys at Bundaberg.

SWAINSONA, Salisb.

S. phacifolia, F. v. M. in S. Austr. Reg. 1850, Fl. Austr. ii. 221 = *S. stipularis*, F. v. M. Plant perennial with ascending or erect stems often exceeding 1 ft. and sometimes much branched, usually hoary or white with short hairs, giving it a silky or almost mealy appearance. Leaflets usually 7 to 11, linear or narrow-oblong, acute, rather obtuse or emarginate. Stipules broad, especially the upper ones, which are often toothed. Flowers few in the raceme, on long peduncles. Calyx hoary or rarely with black hairs, nearly 3 lines long, the lobes acute or subulate-acuminate, usually about as long as the tube. Standard thin at the base, with a broad short claw and without callosities; keel much incurved but obtuse; wings as long as the keel. Ovary sessile, villous. Style rigid, flattened in the lower portion, distinctly hooked, inflexed, or almost involute at the end. Pod narrow-oblong, $\frac{1}{2}$ to nearly 1 in. long, often incurved, the upper suture slightly indented.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 69.

TRIBE PHASEOLEÆ.

FLEMINGIA, Roxb.

F. pauciflora, Benth., Fl. Austr. ii. 269. A low perennial or under-shrub, with prostrate or ascending stems, softly silky-pubescent or villous all over. Leaflets 3, from obovate to elliptical-oblong, obtuse or softly mucronate, 1 to 2 in. long. Stipules narrow, acuminate, often

persistent. Flowers small, 2 or 3 together, almost sessile on short axillary peduncles. Bracts narrow, silky, persistent. Calyx silky, the tube very short, the lobes narrow, acuminate, often 3 lines long. Petals shorter than the calyx-lobes. Standard rather broad, keel obtuse. Pod very oblique, as broad as long, attaining nearly $\frac{1}{2}$ -in.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 72.

TRIBE DALBERGIEÆ.

DERRIS, Lour.

D. koolgibberah (n. sp.) (From "Koolgibberah," the aboriginal name for the Mulgrave River.) A woody climber attaining a considerable height, densely covered by soft ferruginous hairs, particularly on the branches and inflorescence. Leaflets usually 7, broadly oblong, 3 to 5 in. long, 2 to 3 in. broad, rounded at the base to a petiolule of about 2 lines, very obtuse or slightly apiculate at the point, the terminal leaflet larger, the 6 or 8 primary veins on each side of the midrib and the cross-veins usually prominent, midrib and primary veins with rusty hairs on both sides, upper surface somewhat glossy, under surface with a pale soft pubescence. Inflorescence in narrow panicles 10 to 18 in. long, the side branches very numerous, about 3 in. long, the upper half densely covered by the flower. Pedicels very short, bracteoles close under the calyx. Flowers singly, not in pairs or clusters but very close together, slightly rosy. Calyx campanulate, dark, velvety, with obscure teeth, $1\frac{1}{2}$ line deep. Standard orbicular, with small inflexed auricles at the base on a very short claw, about 4 lines diameter, velvety on the back; wings slightly shorter and more or less adhering to and incurved with the keel, and densely velvety. Upper stamen shortly free at the base, united with the other in the middle. Pod densely clothed with rusty-brown hairs under 2 in. long and about $\frac{1}{2}$ -in. wide, somewhat pointed at each end, prominently winged along the upper suture, 1-seeded, but only immature pods seen.

Hab.: Border of scrubs along the Mulgrave River.

In some respects this Queensland plant approaches *D. ferruginea*, Benth.

SUBORDER CÆSALPINIÆ.—TRIBE CASSIÆ.

CASSIA, Linn.

C. australis, var. revoluta, Benth., Fl. Austr. ii. 286. Leaflets narrow-linear and acute, the margins much revolute, glabrous or pubescent.

Hab.: Moggill, Brisbane River.

C. Chatelainiana, Gaud. in Freyc. Voy. 485, t. 111; Fl. Austr. ii. 286. An erect glabrous shrub of several feet. Leaflets 3, 4, 5 rather distant pairs, linear, obtuse, about $\frac{3}{4}$ to 1 in. long, rather thick, flat; gland usually long and subulate between those of the lowest pair only, but sometimes also of the next pair, or rarely wanting. Flowers

rather large, in umbels at the end of short axillary peduncles, with sometimes 1 or 2 pedicels below the umbel. Bracts ovate or oblong, very obtuse. Sepals nearly 3 lines long. Petals broad, $\frac{1}{2}$ to $\frac{3}{4}$ in. long. Lower stamens rather larger than the others. Pod straight, often $\frac{1}{2}$ -in. broad.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 73.

C. phyllodinea, *R. Br.* in App. Sturt Exped. 15; Fl. Austr. ii. 287. An erect, rigid, bushy shrub, hoary or white with a close silky tomentum. Leaves all phyllodineous, linear, vertically compressed but thick, obliquely obtuse, truncate or even shortly 2-lobed at the end, 1 to $1\frac{1}{2}$ in. long, narrowed at the base; gland none, or a faint one on the upper edge. Peduncles short, axillary, bearing a very short raceme of several flowers on slender pedicels. Bracts very small. Sepals obtuse, 2 to $2\frac{1}{2}$ lines long. Petals twice as long. Anthers 2 or 3 rather larger than the others. Pod stipitate, straight or slightly curved, 5 or 6 lines broad, obtuse.

Hab.: Wilson's River.

SUBORDER MIMOSÆ.—TRIBE ACACIÆ.

ACACIA, Willd.

SERIES UNINERVES.

A. Dietrichiana, *F. v. M.*, Sou. Sci. Rec. ii. 149. (After Mrs. Amalia Dietrich.) Branchlets viscid, dark-coloured, slender, not angular. Phyllodia much elongated, linear, 1-nerved, almost straight, short-pointed, bearing a gland close above their base. Heads of flowers solitary, small, globular, somewhat viscid, on stalks of twice or thrice their length. Sepals 5, spatulate-linear, soon free, not fringed, above half as long as the nerveless petals, not much longer than the rhomboid, laminated, but otherwise very thin bracts. Ovary glabrous, blunt. Pod not known.—*F. v. M.*, l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 77.

A. buxifolia, *A. Cunn.* in Field. N.S.W. 344; Fl. Austr. ii. 372; *Hook.*, l.c. Pl. t. 164. A glabrous shrub with angular branches. Phyllodia obliquely oblong-lanceolate, somewhat falcate, narrowed at each end, usually under 1 in. rarely $1\frac{1}{2}$ in. long, rather thick, with scarcely prominent nerves and obscure veins, the marginal gland small or none. Raceme scarcely exceeding the phyllodia, with several small globular heads of 8 to 12 or rarely more flowers, mostly 5-merous. Calyx short, broad. Petals smooth. Pod straight or curved, flat, 3 or 4 lines broad. Seeds longitudinal, close to the upper suture; last fold of the funicle thickened into a lateral club-shaped aril, the lower ones very small.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 77.

SERIES PLURINERVES.

A. impressa, *F. v. M.* in Journ. Linn. Soc. iii. 133; Fl. Austr. ii. 380. A tall shrub, the branches slightly angular, more or less

pubescent as well as the foliage. Phyllodia obovate or obovate-oblong, very oblique-undulate, obtuse or with a small glandular point, $\frac{1}{4}$ to $\frac{1}{2}$ or rarely 1 in., with 3 to 5 nerves and anastomosing veins. Peduncles about as long as the phyllodia, bearing each a globular head of about 12 to 20 flowers, mostly 5-merous. Sepals distinct or slightly coherent, spatulate. Petals rigid and striate, united at the base. Pod straight or nearly so, thinly coriaceous, flat with thickened margins, about $\frac{1}{2}$ -in. broad, very glutinous and villous. Seeds oval-oblong, transverse, the central area much depressed; funicle forming several folds, the last 2 or 3 dilated into a rather small aril at the base of the seed.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 78.

A. coriacea, DC., Mem. Leg. 446, and Prod. ii. 451; Fl. Austr. ii. 385. Ashy-grey, with the young shoots silky-hoary or almost golden; branchlets terete. Phyllodia long-linear, straight or curved, obtuse, narrowed towards the base, often $\frac{1}{2}$ -ft. long or more, 1 to $2\frac{1}{2}$ lines wide, thickly coriaceous, with numerous fine and closely packed longitudinal nerves only visible under a lens. Peduncles usually in pairs, $\frac{1}{4}$ to $\frac{1}{2}$ in. long, bearing each a globular head of 20 to 25 flowers, mostly 5-merous, hoary-pubescent in the bud. Calyx $\frac{1}{4}$ -in. long, tubular, with ciliate lobes. Petals rather longer, united above the middle. Pod 6 to 9 in. long, moniliform; valves coriaceous, very convex, 4 to 5 lines broad, oblong and striate over the seeds, much contracted between them, broad, oblong. Seeds longitudinal, distant; funicle folded and dilated under the seed.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 78.

SERIES JULIFLORÆ.

A. lysiphlaea, F. v. M. in Journ. Linn. Soc. iii. 137; Fl. Austr. ii. 393. A rigid shrub of several feet or small tree, glabrous or nearly so, often very resinous. Phyllodia rather crowded, erect, obliquely linear-oblong, linear or oblanceolate, mostly obtuse but with a short, rigid, straight, or oblique point, narrowed at the base, $\frac{1}{2}$ to 1 in. long, thick and rigid, with 3 to 5 obscure or more or less prominent nerves. Spikes pedunculate, $\frac{1}{4}$ to 1 in. long, slender but dense. Flowers mostly 5-merous. Sepals very short, thin, shortly united at the base. Petals shortly united, the midribs prominent. Pod flat, oblique or falcate, 1 to 2 in. long, $\frac{1}{4}$ to $\frac{1}{2}$ in. broad, hard and almost woody, reticulate and resinous. Seeds ovate, oblique; funicle shortly folded and thickened into a small aril under the base of the seed.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 79.

A. gonoclada, F. v. M. in Journ. Linn. Soc. iii. 140; Fl. Austr. ii. 396. Glabrous and glaucous, branchlets stout, with 2 or 3 much-raised acute angles. Phyllodia lanceolate-oblong, slightly falcate, obtuse with oblique glandular tips, obliquely narrowed towards the base, 3 to 4 in. long, 4 to 8 lines broad, coriaceous, with 2 or 3 more prominent nerves almost confluent with the lower edge near

the base, and numerous fine parallel veins scarcely anastomosing, and not very closely packed. Spikes shortly pedunculate, oblong-cylindrical, dense, about $\frac{1}{2}$ in. long. Flowers mostly 5-merous. Calyx half as long as the corolla, shortly toothed. Petals distinct, smooth, without prominent midribs. Pod narrow-linear, straight, 1 to $1\frac{1}{2}$ in. long, $1\frac{1}{2}$ line broad, thin and flat, with nerve-like margins. Seeds longitudinal, funicle dilated and folded under the seed.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 79.

A. cibaria, *F. v. M.*, Melb. Chem. July, 1882. (Native name at Shark Bay, "Wonuy," *F. v. M.*) A tall shrub or small tree. Branchlets not angular, slightly silky. Phyllodia rather long, thick, rigid, broadly linear, very finely many-nerved, of greyish hue, curved-apiculated; stipules and gland obliterated. Spikes axillary, solitary, short-stalked, not elongated. Flowers slightly short-hairy. Bracts rhomboid towards the summit, very thin towards the base, surpassed in length by the flowers. Sepals narrow, free, hardly half as long as the unstreaked corolla. Pods straight, cylindrical, longitudinally streaked. Seeds placed lengthwise, oblong, their two areoles minute; strophiole very short, cupular, occupying only the basal portion of the seed; funicle closely twisted beneath the strophiole.—*F. v. M.*, l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 79.

Baron Mueller says that in foliage this species resembles *A. aneura*, but differs in the pods from that species. He also says that the seeds are used for food by the natives.

A. delibrata, *A. Cunn.*; *Benth.* in Hook. Lond. Journ. i. 374; Fl. Austr. ii. 404. A tall shrub with slender slightly angular branches, silky-pubescent when young. Phyllodia linear-lanceolate, falcate, narrowed at both ends, 4 to 6 in. long, 2 to 5 lines broad in the middle, rather thin, sprinkled with loose silky hairs, with about 3 fine but prominent nerves, and finer, less conspicuous, and not very numerous longitudinal veins between them occasionally anastomosing. Fruiting spikes with a rachis of 1 to $1\frac{1}{2}$ in. Pod elongated; valves rather convex over the seeds, narrowed between them. Seeds longitudinal.—Fl. Austr., l.c.

Hab.: Gulf country.—*Dr. Thos. L. Bancroft.*

DIVISION BIPINNATÆ.—SERIES GUMMIFERÆ.

A. Sutherlandi, *F. v. M.*, Ic. 12th Acacia Decade. (*Albizzia Sutherlandi*, *F. v. M.*, Fragm. vi. 22, ix. 179; *Acacia melaleucoides*, *Bail.*, Proc. Roy. Soc. Ql. v. 121.) A small tree, the bark on the trunk much cracked and of a dark colour, the branches drooping, branchlets more or less angular and corky, young growth said to be of a decided golden hue. Leaves slender, from 6 to over 12 in. long, of from 15 to over 20 pairs of pinnæ 2 to 3 in. long; common petiole 2 to 3 in. long; leaflets linear, 2 to $2\frac{1}{2}$ lines long and about $\frac{1}{2}$ line broad; glands dark, between the 3 upper pairs of pinnæ only. Stipules none on the

specimens examined. Peduncles solitary, about 1 in. long, bearing a stem-clasping 2-lobed bract about the middle. Spike about $1\frac{1}{2}$ in. long. Flowers numerous but not crowded, pale-coloured, bracts subtending the flowers very deciduous, narrow. Calyx-tube nearly 2 lines long, teeth 3, rather broad and silky. Corolla-tube about 2 lines long, teeth 5, about $\frac{1}{2}$ -line long, narrow silky. Stamens numerous, exserted about 3 lines; anther minute, globular. Pod very thick, 4 to 6 in. long, $\frac{3}{4}$ -in wide, sessile. Seeds thick, oval, about 5 lines long.

Hab.: Southern slope of Newcastle Range, between Georgetown and Junction Creek.—R. C. Burton.

Order SAXIFRAGEÆ.

TRIBE CUNONIEÆ.

BAUERA, Banks.

B. capitata, Ser. in DC. Prod. iv. 13; Fl. Austr. ii. 448. A small shrub, either diffuse with the habit of the shorter specimens of *B. rubioides*, var. *microphylla*, or with a woody stock and numerous slender stems of $\frac{1}{2}$ -ft., slightly pubescent. Leaflets narrow, scarcely above $\frac{1}{4}$ -in. long, obtuse, usually with 1 prominent lobe or tooth on each side. Flowers almost sessile, solitary in each axil, but several pairs close together at the ends of the branches, forming little leafy heads. Calyx-segments 4 to 6, usually 5, about 2 lines long, more distinctly 3-fid than the leaves. Stamens not numerous; anthers small. Ovary free, but attached by a broad base; ovules several in each cell, ascending from near the base of the partition. Capsule loculicidal but scarcely septicidal. Seeds rather large, pubescent, rugose, with a prominent raphe.—Fl. Austr., l.c.

Hab.: Logan River.—Rev. B. Scortechini.

Order HALORAGEÆ.

HALORAGIS, Forst.

SERIES ALTERNIFOLIÆ.

H. elata, A. Cunn.; Fenzl. in Hueg. Enum.; Fl. Austr. ii. 476. Rather coarse, with erect or ascending branches, $\frac{1}{2}$ to $1\frac{1}{2}$ ft. high, hirsute with spreading hairs. Leaves alternate, or a few very rarely irregularly opposite, linear, acutely acuminate, $\frac{1}{2}$ to 1 in. long, with revolute margins, entire or rarely with a few short teeth, the floral ones smaller but mostly exceeding the flowers. Flowers solitary, not very small, in terminal racemes forming a narrow leafy panicle. Calyx hirsute, the lobes not cordate. Petals 4, ciliate on the keel. Stamens usually 8. Styles and ovules 4. Fruit small, ovoid, prominently muricate.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 85.

H. Gossei, F. v. M., Fragm. viii. 161. Plant erect, glabrous. Leaves scattered, flat, narrow-lanceolate, remotely toothed. Flowers (female)

solitary or in twos or threes in the axils at the upper ends of the branches. Calyx 3-lobed, at first ovate-rhomboid, at length broad, renate, rhombiform. Fruit 3-celled, 3-winged, or at times 4-celled, 2 to 4 lines long, $\frac{3}{4}$ to $1\frac{1}{2}$ line broad. Seeds solitary in each cell.—*F. v. M., l.c.*

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 86.

SERIES OPPOSITIFOLIÆ.

H. stricta, *R. Br.*; *Benth.* in Fl. Austr. ii. 482. Plant rigid but slender, rather tall, nearly glabrous in appearance but very scabrous. Stem-leaves opposite, linear or linear-lanceolate, acute, entire or with small distant teeth, the largest ones 1 to 2 in. long, the floral ones alternate, mostly reduced to small bracts. Flowers clustered within each bract, shortly pedicellate, forming slender terminal racemes leafy at the base. Calyx-lobes small, acute. Petals 4, about 1 line long. Stamens 8. Style and ovules 4. Fruit small.

Hab. : Broadsound.—*R. Br.*, Fl. Austr., l.c.

H. depressa, *Walp.*, Rep. ii. 99; Fl. Austr. ii. 485. A small species, diffuse or prostrate, very much branched, glabrous in appearance, but scabrous with minute asperities. Leaves all opposite, ovate, often cordate, usually broad, under $\frac{1}{2}$ -in. and often not $\frac{1}{4}$ -in. long, the upper floral ones gradually smaller, but all opposite or very rarely the upper ones of side branches alternate. Flowers almost sessile, forming short interrupted terminal racemes, and similar to those of the smaller forms of *A. tetragyna*, except that the calyx-tube and fruit are smooth and shining, with 4 or 8 prominent nerves, not tuberculate.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 86.

H. Bæuerlenii, *F. v. M.*, Trans. Roy. Soc. Vict. xxiv. 133. A tall shrub with glabrous spreading branches, the smaller ones quadrangular and of a reddish tinge. Leaves opposite, attaining 2 in. in length and 4 to 6 lines in breadth, flat, gradually narrowed into an acute apex, on some shoots pinnatilobed. Pedicels axillary, solitary or perhaps racemose when near the ends of the branches, 2 of the calyx-lobes deltoid, the 2 others dilated, or truncate-rhomboid; tube when fruit-bearing expanded into 4 broadish conspicuously veined membranes, of these, on each side of the somewhat compressed tube 2 approximated. Styles 4, very short; stigmas beardless. Fruit rather large, 4-celled; pericarp spongy.

Hab. : Given as a Queensland plant in Muell. 4th Suppl. Syst. Cens. Austr. Pl. 3.

CALLITRICHE, Linn.

C. macropteryx, *Hegelm.*, Monogr. Callitr. (*C. Muelleri*, Sond.) This species (?) is the common one in Queensland, and only differs from *C. verna*, Linn., in having broader wings to the fruit.

ALLIANCE MYRTALES.

Order RHIZOPHORACEÆ.

BRUGUIERA, Linn.

B. caryophylloides, *Blume*, Enum. Pl. Jav. 93. A small tree. Leaves oblong to oblong-lanceolate, acuminate at both ends, scarcely coriaceous. Peduncles equalling the petioles, 1 to 5 usually 3-flowered buds sub-acute, pedicelled. Calyx about 8-cleft; lobes linear, sub-acute, about $\frac{1}{4}$ -in. reflexed and half the length of the tube in fruit. Petals ciliate from the base to apex, nearly erect, bifid, bearing 3 to 4 bristles and 1 in the notch. Calyx-tube obtuse at the base, not ribbed. Ovary 2-celled. Fruit about $\frac{1}{4}$ -in., urceolate, slightly constricted below the calyx-limb.—Fl. Brit. Ind. ii. 438.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 86.

Order MYRTACEÆ.

TRIBE LEPTOSPERMEÆ.

BÆCKEA, Linn.

B. unifolia, *Rudge* in Trans. Linn. Soc. viii. 297, t. 12; Fl. Austr. iii. 80. Tall and erect, with slender virgate branches. Leaves very narrow-linear, semi-terete or concave, acute, in some specimens all above $\frac{1}{4}$ -in., attaining $\frac{1}{2}$ or even 1 in., in others mostly $\frac{1}{4}$ to $\frac{1}{2}$ in. long. Flowers small, solitary in the upper axils, almost sessile or on pedicels rarely attaining 1 line. Calyx-tube turbinate or at length almost urceolate; lobes very broad and short, scarcely pointed. Petals about 1 line diameter. Stamens 10 to 15, none opposite the centre of the petals; filaments filiform; anther-cells parallel, opening longitudinally; connective-gland small. Ovary flat-topped, 2-celled, with 15 to 20 ovules in each cell round an orbicular almost peltate placenta. Capsule separating readily from the calyx-tube. Seeds small, angular. Embryo with the slender cotyledonar end closely folded against the radicle, but otherwise straight.

Hab.: Moreton Bay.—*H. Simmonds*.

KUNZEA, Reichb.

SECTION SALISIA.

K. peduncularis, *F. v. M.* in Trans. Vict. Inst. 1855; Fl. Austr. iii. 115. A tall shrub or small tree; the branchlets virgate, glabrous or very slightly silky when young. Leaves linear or linear-lanceolate, concave, acute, mostly about $\frac{1}{2}$ -in. but varying from $\frac{1}{4}$ to nearly 1 in. long. Flowers small, shortly pedicellate in the upper axils, forming either short terminal leafy corymbs, or long interrupted leafy racemes. Bracteoles scarious, but falling off from the very early bud. Calyx glabrous, about $1\frac{1}{2}$ line long; lobes ovate, with scarious margins. Petals obovate, not exceeding 1 line. Stamens about 30, in a single series, from half as long again to twice as long as the petals.

Ovary about half as long as the calyx-tube, 3-celled or very rarely 4-celled, with numerous ovules in each cell on a peltate placenta. Fruiting calyx slightly enlarged. Seeds usually only 1 perfect in each cell.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 98.

LEPTOSPERMUM, Forst.

L. wooroonooran (n. sp.) (Aboriginal name for Bellenden-Ker.) Trunk often extending in an almost horizontal position for several yards at from 3 to 6 ft. above the ground, 2 or 3 ft. diameter, with a thick stringy bark, from which branches arise to 20 or 30 ft.; thus forming a large spreading-headed tree of dense foliage. This peculiar growth is due probably to the high winds which blow at certain seasons of the year. Leaves alternate, lanceolate, $\frac{1}{2}$ to $\frac{3}{4}$ in. long, 2 to 2 $\frac{1}{2}$ lines broad in the centre, midrib and a marginal nerve on each side prominent, oil-dots numerous, with blunt, glandular, slightly recurved apex, base decurrent forming angles on the branchlets, slightly silky when young, as are also the young shoots. No flowers seen. Capsules solitary or 2 together at the ends of the short branchlets. Calyx-tube glabrous, 5-ribbed, corresponding with the 5 cells, nearly sessile, slightly over 2 lines diameter; the capsule prominent above the calyx-tube.

Hab.: South Peak, Bellenden-Ker, and so far as at present known only found there. The wood is strong, heavy, and of a reddish colour.

EUCALYPTUS, L'Her.

E. pachyphylla, *F. v. M.* in Journ. Linn. Soc. iii. 98; Fl. Austr. iii. 237; Eucalyptogr. 1st Dec. A tall shrub with thick branchlets. Leaves ovate or ovate-lanceolate, abruptly acuminate, under 4 in. long, very thick and smooth, the fine diverging parallel veins scarcely conspicuous. Flowers nearly or quite sessile, calyx with 4 to 7 longitudinal angles, operculum semi-ovate and acuminate, twice as long as the tube. Stamens yellow. Fruiting umbels nearly sessile; fruits on thick terete pedicels, nearly hemispherical, 4-ribbed, very hard and woody, $\frac{1}{2}$ to 1 in. diameter, the rim very broad and conically exerted, the capsule depressed below the rim, the valves scarcely protruding. Seeds broad, flat, bordered by a narrow wing.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 98.

TRIBE MYRTEÆ.

MYRTUS?

M. metrosideros (n. sp.) Tree 30 or 40 ft. high, trunk often crooked, 1 to 1 $\frac{1}{4}$ ft. diameter, bark thick and loose on the outside; head spreading and foliage very dense; branchlets and leaf-petioles silky-hairy. Leaves ovate, with long acuminate points, mostly under 1 in. long, glabrous except while very young, coriaceous, the midrib

alone showing, glossy on the upper, pale and closely dotted with minute dots on the under side; petioles 2 lines long.

This and the *Leptospermum woorenooran* are the only two large trees on the south peak of Bellenden-Ker, therefore of sufficient interest to mention, although no flowers or fruit were obtained. I have placed it under *Myrtus*, but it strongly reminds one of some of the New Zealand *Metrosideros*.

Order LYTHRARIÆ.

AMMANNIA, Linn.

A. mexicana, *Chamis. and Schlecht.* in *Linnæa* v. 567.*

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 84.

A. occultiflora, *Koehne* in *Engler's Jahrb.* i. 152.*

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 84.

A. diandra, *F. v. M.*, *Fragm.* iii. 108; *Fl. Austr.* iii. 296. Erect or creeping at the base, branched or nearly simple, not exceeding 6 in. but not so slender as *A. pentandra*. Stem-leaves sessile, orbicular, very obtuse, cordate at the base, 2 or 3 lines diameter, the floral ones scarcely smaller, orbicular or ovate, and often very close, forming imbricated decussate spikes. Flowers solitary in the axils, sessile or nearly so. Calyx small, very thin and membranous, somewhat 4-angled, with 4 acute lobes shorter than the tube, without accessory teeth. Petals rudimentary. Stamens usually 2, inserted below the middle of the tube. Ovary 1-celled or imperfectly 2-celled. Capsule opening in 2 valves.—*Fl. Austr.*, 1.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 84.

ALLIANCE PASSIFLOREALES.

Order PASSIFLOREÆ.

CARICA, Linn.

Flowers unisexual or sometimes hermaphrodite. Male flowers: Calyx small, 5-lobed; corolla hypocrateriform, the tube slender, elongated, lobes oblong or linear, valvate or contorted; stamens 10, inserted at the throat of the corolla, biseriate; anthers 2-celled; ovary rudimentary, subulate. Female flowers: Calyx of the males; petals 5, linear-oblong, erect, deciduous; staminodia none; ovary free, sessile, 1 or spuriously 5-celled; style none or very short; stigmas 5, dilated or linear, simple or lobed, ovules numerous. Berry fleshy, sulcate, pulpy within, indehiscent. Seeds ovoid, subcompressed; testa coriaceous or crustaceous, smooth, rugose, or echinate. Trees or shrubs with simple thick stems and milky sap. Leaves alternate, subpeltate, palmate, digitately divided into 7 to 9 lobes.—*From Benth. and Hook. Gen. Pl.*

C. Papaya, *Linn.* Stems simple or rarely branched, thick, spongy inside, the leaves about the summit, on long petioles, glabrous, of about 7 pinnatifid lobes. On the male plants the flowers are borne on

* Description not to hand.

long drooping panicles, with often a few hermaphrodite or female flowers at the end; the flowers on the female plants are usually sessile or nearly so in the axils of the leaves.

Hab.: This plant of Tropical America has become naturalised in some of the scrubs of Tropical Queensland

PASSIFLORA, Linn.

P. quadrangularis, Linn. (The large Granadilla.) Stems quadrangular, almost or quite winged. Leaves ovate-roundish, subcordate at the base, mucronate, quite entire, arch-veined, the petiole with usually 3 pairs of glands near the summit. Stipules large, ovate or ovate-oblong. Involucre of 8 bracts. Flowers large, very fragrant and showy, the petals rosy, corona violet. Fruit oblong.

Hab.: This South American climber has become naturalised in some of the scrubs of Northern Queensland.

Order CUCURBITACEÆ.

TRICHOSANTHES, Linn.

T. cucumerina, Linn., Spec. Pl. 1432; Fl. Austr. iii. 314. Stems slender, although sometimes extending to a great length. Leaves nearly orbicular or reniform in their outline, broadly cordate at the base, mostly 3 or 4 in. diameter, palmately 3 to 7-lobed, the lobes broad, reaching to the middle and irregularly toothed, more or less scabrous-pubescent. Tendrils 3-branched. Male flowers in short racemes at the end of a long slender peduncle, without bracts. Calyx-tube, in the young bud, short, broad, and rounded at the base; teeth very short and recurved. Corolla-lobes narrow-oblong, $\frac{1}{2}$ -in. long, besides the fringe of long cilia. Female flowers shortly pedicellate. Calyx-tube attenuated above the ovary into a long slender neck. Fruit ovoid-conical, acuminate, not exceeding 2 in., orange-red or yellow when ripe. Seeds about 8 or 10, thick but flattened, with the margin more or less crenate.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 129.

LUFFA, Cav.

L. ægyptiaca, Mill., Dict.; Ser. in DC. Prod. iii. 303; Fl. Austr. iii. 316; Fl. Brit. Ind. ii. 615.

L. æ. var. peramara, Bail. (So designated from the intense bitter of the fibres of the fruit). Plant of climbing habit rambling over shrubs and small trees to the height of about 20 ft. Stems 5-angular, smooth, the young growth hoary or silvery. Leaves 4 to 8 in. diameter, more or less deeply 5-lobed, the lobes more or less toothed or lobed, the central lobe often much longer than the others and always acute, the lower lobes often rounded, scabrous, especially on the upper surface; petioles angular, nearly of equal length with the lamina. Tendrils 2 or 3-branched or at times simple. Male flowers in short racemes on long peduncles, with a sessile,

glabrous, thick, prominently tuberculated, cordate bract at the base, and similar bracteoles under each flower. Calyx-tube turbinate, 10-nerved; lobes longer than the tube, acuminate, 3 or 4 lines long. Corolla about 2 in. diameter, yellow, divided into 5 obovate deeply divided lobes or petals, much bearded at the base. Stamens 5, in some flowers all free, in others 2 connate pairs and the other free. Female flowers solitary, pedunculate, in the same axils as the male, without bract or bracteole; calyx-lobes tuberculate like the bracts, corolla as in the males. Fruit ovate-oblong, about 3 in. long, 10-nerved, smooth, grayish or light-brown, internal fibres black and very bitter. Seeds oval, very dark brown with irregular jet-black spots, otherwise smooth, 4 lines long excluding the narrow wing by which it is surrounded.

Hab.: Mulgrave River.

Dr. Thos. L. Bancroft says of the fruit of this plant—"Upon tasting the fruit there is experienced an intensely bitter sensation, which in a few minutes disappears but leaves a distressing acidity in the throat, which is not at its worst until several hours afterwards. An extract is very poisonous and contains two principles, a bitter substance and a saponin."—*Paper to Linn. Soc. of N.S.W.*, Nov., 1889.

In *Fragm.* iii. 107 Baron Mueller describes this *Luffa* under Nandin's name of *L. leiocarpa*, but in his later works follows the *Flora Austr.* and places it as *L. aegyptiaca*, of which I consider the Australian plant had better be known as a distinct form, as above given.

MELOTHRIA, Linn.

M. subpellucida, *Cogniaux*, Muell. 2nd. Syst. Cens. Austr. Pl. 129.*

Hab.: Given as a Queensland plant, l.c.

M. Celebica, *Cogniaux* in DC. Mon. Phan. iii. 625, in Muell. 2nd Syst. Cens. Austr. Pl. 129.*

Hab.: Given as a Queensland plant, l.c.

ALLIANCE FICOIDALES.

Order FICOIDEÆ.

MOLLUGO, Linn.

M. stricta, *Linn.*, Spec. Pl. ed. alt. 31; Muell. 2nd. Syst. Cens. Austr. Pl. 53. Plant glabrous, stems much branched, leafy, about 1 ft. high. Leaves $\frac{1}{2}$ to $1\frac{1}{2}$ in., whorled or opposite, varying from lanceolate-acute to obovate-obtuse, much narrowed at the base; the petioles hence obscure. Cymes compound, the branches sometimes racemose. Sepals about $1\frac{1}{2}$ line long, elliptic or round. Stamens 3 to 5, filaments dilated. Styles 3, short, linear. Capsule as long as the sepals, globose, many-seeded. Seeds dark chestnut-coloured, covered with raised tubercular points; embryo curved into three-quarters of a complete circle.—*Clarke* in Hook. Fl. Brit. Ind.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 53.

* Description not to hand.

ALLIANCE UMBELLALES.

Order UMBELLIFERÆ.

SERIES HETEROSCIADIÆ.—TRIBE HYDROCOTYLEÆ.

TRACHYMENE, Rudge.

T. cyanopetala, *Benth.*, Fl. Austr. iii. 348. Plant rather slender, nearly glabrous. Leaves deeply 3 or 5-lobed, with narrow-linear or cuneate entire or 2 or 3-lobed divisions. Peduncles short. Involucre of 4 or 5 bracts. Flowers in the umbel 3 to 6, on very short pedicels. Petals blue. Fruit densely covered with soft ciliolate bristles.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 106.

Order ARALIACEÆ.

ARALIA, Linn.

A. Macdowalli, *F. v. M.*, Sou. Sci. Rec. April, 1886. To which description may be added:—Tree with slender erect trunk 30 to 40 feet high; the whole as well as the branches densely covered with short, stout, sharp prickles except on the petioles, although present there.—Rep. Bellenden-Ker Exped. 44.

Porospermum Michieanum, *F. v. M.*, in Muell. 2nd. Syst. Cens. Austr. Pl. 105, is given as *Delarbrea Michieana*, *F. v. M.*

SUBCLASS GAMOPETALÆ.—SERIES INFERÆ.

ALLIANCE RUBIALES.

Order RUBIACEÆ.

TRIBE NAUCLEEÆ.

UNCARIA, Schreb.

(Named from the hooks formed by the old peduncles.)

Calyx-tube spindle-shaped; limb 5-lobed or parted. Corolla-tube long funnel-shaped; limb 5-lobed, valvate; throat glabrous. Stamens 5, attached on the throat of the corolla; filaments short; anthers with 2 basal bristles. Ovary 2-celled; style slender; stigma capitate; ovules many, ascending on projecting placentas. Capsule elongate, septicidally 2-valved, many-seeded. Seed imbricating upwards, testas winged above and below; embryo clavate, in fleshy albumen. Climbing shrubs. Leaves shortly petiolate; stipules entire or 2-fid. Flowers in globose, axillary, pedunculate, solitary, or paniculate heads. The peduncles often headless and converted into hooked tendrils.

U. ferrea, *DC.*, Prod. iv. 348; *Hook.*, Fl. Ind. iii. 33. A robust climbing shrub often attaining the height of 30 or 40 ft.; branches subterete and more or less covered by rusty-brown short hairs, which also extend to the nerves of the leaves. Leaves ovate or

elliptical-ovate, obtusely acuminate, primary nerves of 8 or 9 pairs, very prominent; petiole short. Stipules large, 2-fid. Peduncles axillary, with several ovate, acuminate, tomentose bracts nearly $\frac{1}{2}$ -in. long. Heads 2 in. diameter; flowers subsessile; calyx-tube shorter than the lobes, hirsute; lobes filiform; corolla glabrous. Capsule about $\frac{1}{2}$ -in. long, fusiform, hairy, the pedicels about the same length.—In part from Hook. Fl. Ind. The flowers of the Queensland plant not seen.

Hab.: Mulgrave River.

From some leaves which I submitted to Dr. Thos. L. Bancroft for examination, he states that he found them to contain catechu, like *U. Gambier*, another Indian species, from the foliage of which the catechu of commerce, Gambier or *Terra japonica*, is obtained.

TRIBE HEDYOTIDÆ.

OLDENLANDIA, Linn.

(After H. B. Oldenland, a collector of plants in South Africa.)

Calyx-teeth 4 rarely 5, usually erect and distant in fruit, with sometimes alternating teeth. Corolla rotate, funnel or salver-shaped, tube short or long; lobes 4 or rarely 5, obtuse, valvate. Ovary 2-celled; style filiform; stigmas 2, linear; ovules numerous, placentas attached to the septum. Capsule small, usually membranous, terete, didymous, or angled, loculicidal at the top, rarely indehiscent, many-seeded. Seeds angled or globose, testa not winged, smooth or pitted; embryo clavate in fleshy albumen.—*Hook.* in Fl. Brit. Ind. iii. 64.

O. corymbosa, *Linn.*; *Hiern.* in Oliv. Fl. Trop. Afr. iii. 62. An erect ascending or diffuse annual, smooth and glabrous or nearly so, branched, up to a foot in height. Branches 4-angled, usually smooth. Leaves linear or nearly so, acute or apiculate, narrowed to the sessile base, usually glaucous or paler underneath, the longer ones $\frac{2}{3}$ to $1\frac{1}{2}$ in. long, or in some forms longer; stipules truncate, shortly sheathing, sub-3-setose. Flowers tetramerous, white, 1 to $1\frac{1}{2}$ line long, 2 to 5 together in axillary and terminal umbellate corymbs usually rather shorter than the leaves or rarely solitary; pedicels 1 to 3 lines long; peduncles ranging up to $\frac{1}{2}$ -in. Calyx about equalling the corolla-tube, teeth lanceolate, as long as the tube. Corolla campanulate or subrotate; throat pubescent or nearly glabrous. Anthers included or subexserted. Fruit subglobose, a little over 1 line diameter, subdidymous, crowned by the calyx-limb, at length bursting loculicidally at the apex.—*Hiern.*, *l.c.*

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 125.

O. paniculata, *Linn.*, *Burm.* Fl. Ind. 38, t. 15, f. 1. A glabrous stout or slender annual, succulent, 6 to 18 in. high, erect or diffuse, branched from the base, the branches obtusely 4-angled. Leaves petiolate, elliptic-ovate or oblong, $\frac{1}{3}$ to 3 in. long, $\frac{1}{4}$ to $1\frac{1}{2}$ in. broad, bright-green, soft, nerves indistinct, narrowed to the petiole. Stipules truncate, with median points or bristles. Cymes in the upper axils, short, 3 to 8-fid. Flowers minute, white. Capsules very variable,

1½ to 2 lines diameter, turbinate, didymous, or hemispherical, terete or 4-ribbed, membranous; crown usually exceeding the calyx-teeth.—*Hook.*, Fl. Brit. Ind. iii. 69.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 125.

HEDYOTIS, Linn.

H. psychotrioides, *F. v. M.*, Vict. Nat. vi. 54. Leaves rather large, ovate to elongate-lanceolate, somewhat acuminate, almost membranous, narrowed into a short petiole, glabrous above, pale beneath, the veins hairy, stipules deltoid, short-pointed, fugacious; cymes in a terminal divergently branched panicle, densely clothed with short, appressed, brownish-grey hairs; flowers quite small, 5-merous; bracts minute, narrow-semilanceolate; calyx-lobes roundish-deltoid, very short; tube of the corolla almost entirely enclosed, inside glabrous, turgid; lobes membranous, venulous, about as long as the tube; anthers almost sessile, ovate-ellipsoid, broadest towards the base, and there slightly bilobed, their apex minutely bidenticular, dehiscence introrse; style never much elongated; stigmas very short; epigynous disk beset with minute hairs; fruit small, the 4-valved summit alone emerging, ovate-globular, slightly compressed; placentaries inserted about the middle of the dissepiment; seeds numerous, very minute, shining brown, somewhat oblique-ovate, angular, reticular-foveolate.—*F. v. M.*, l.c.

Hab.: Russell River.—*W. Sayer*.

TRIBE MORINDEÆ.

MORINDA, Linn.

M. hypotephra, *F. v. M.*, Vict. Nat. vi. 55. A climbing shrub, leaves on short petioles, firmly chartaceous, mostly ovate-lanceolate, acuminate, dark-green above, grey and velvety on the under side, stipules fugacious; peduncles short, few or 2 together, seldom solitary; heads small, with only 2 to 5 flowers perfecting their fruits; involucrel pericarp inside beset with rigidulous pale shining hairs, putamen of individual fruits almost ovate, smooth, comparatively thick, dark outside.—*F. v. M.*, l.c.

Hab.: Bellenden-Ker.—*W. Sayer*.

ALLIANCE ASTERALES.

Order COMPOSITÆ.

TRIBE VERNONIACEÆ.

ETHULIA, Linn.

(Name invented by Linnæus, who has not explained its meaning.)

Flower-heads small, corymbose, homogamous. Involucre sub-campanulate; bracts imbricate in many series. Receptacle flat, naked. Corollas all tubular, equal, regular, slender; limb campanulate; lobes

5, narrow. Anthers obtusely auricled. Style-branches subulate. Achenes glandular between the 4-6 prominent ribs; areole broad with a callous ring; pappus none. Branched herbs with alternate serrated leaves.

E. conyzoides, *Linn.*, DC. Prod. v. 12; Fl. Brit. Ind. iii. 227. An erect glabrous or puberulous leafy annual. Leaves 1 to 5 in. long, narrowly or broadly elliptic-lanceolate, acuminate, narrowed and entire at the base, glandular-dotted; serratures coarse, distant. Flower-heads very numerous, $\frac{1}{8}$ to $\frac{1}{4}$ in. diameter; peduncles short or long, florets purplish or reddish.—Fl. Brit. Ind., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 129.

TRIBE EUPATORIACEÆ.

EUPATORIUM, *Linn.*

(Pliny says, derived from Eupator, King of Pontus, who first used some one of the species in medicine.)

Involucre hemispherical, campanulate, or cylindrical, the bracts imbricate in 2 or more series. Receptacle flat or slightly convex, without scales. Florets numerous or few, all tubular, hermaphrodite, 5-toothed. Anthers obtuse at the base. Style-branches elongated, obtuse. Achenes 5-angled, without intermediate striæ. Pappus of a single series of capillary bristles. Perennial herbs or shrubs or very rarely annuals. Leaves usually opposite. Flower-heads mostly corymbose. Green part of the plant often sprinkled with resinous dots.—Fl. Austr. iii. 461.

E. cannabinum, *Linn.*, DC. Prod. v. 180; Fl. Austr. iii. 462. Hemp Agrimony. A perennial with erect stems of 3 or 4 ft., slightly pubescent. Leaves divided to the base into 3 broadly lanceolate coarsely toothed segments, often 4 or 5 in. long, those of the upper leaves smaller and sometimes very narrow, the uppermost leaves rarely undivided. Flower-heads numerous in compact terminal heads. Involucres cylindrical, of few unequal bracts, the inner ones often coloured. Florets usually 5, purple or rarely white.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 130.

TRIBE ASTEROIDEÆ.

BRACHYCOME, *Cass.*

SECTION PAQUERINA.

B. graminea, *F. v. M.*, Fragm. i. 49; Fl. Austr. iii. 514. Plant slender and usually glabrous; rootstock perennial, creeping or sometimes tufted. Stems occasionally short and numerous, more frequently elongated, decumbent or erect, leafy at the base only or above the middle. Leaves linear or linear-lanceolate, mostly acute, narrowed into a long petiole. Involucre above 3 lines diameter, the bracts narrow-oblong, obtuse. Ray-florets numerous, narrow. Style-appendages narrow. Achenes as long as the involucre, obovate, compressed,

with very thick obtuse callous margins, the somewhat concave sides often tuberculate, and the whole achene sometimes glandular. Pappus none.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 130.

B. multifida, DC., Prod. v. 306; Fl. Austr. iii. 520. A branching erect or diffuse perennial or undershrub, usually glabrous. Leaves pinnate with linear segments, sometimes entire but more frequently lobed or pinnatifid, sometimes long and narrow, sometimes short and slightly dilated. Flower-heads rather small, on long slender peduncles. Achenes black, narrow, slightly compressed, the sides tuberculate, the smooth margins often prominent but not winged. Pappus small.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 131.

MINURIA, DC.

M. Cunninghamii, Benth., Fl. Austr. iii. 498. A tall shrub or undershrub, with short slender branchlets, quite glabrous. Leaves narrow-linear, entire, the larger ones acute and above $\frac{1}{2}$ -in. long, the smaller ones often obtuse, thick and almost fleshy. Peduncles terminal, longer than the leaves. Involucre ovoid or almost hemispherical, about 3 lines long, the bracts narrow, acute. Ray-florets numerous, narrow, longer than the pappus; disk-florets usually few. Achenes of the ray glabrous or slightly pubescent, narrow but flat, with a pappus of numerous very fine white capillary bristles; achenes of the disk nearly terete and abortive, the bristles all except 5 or 10 very short.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 131.

M. denticulata, Benth., Fl. Austr. iii. 499. Allied to *M. integerrima*, but more branching, with diffuse or ascending stems, rarely above 8 or 9 in. high, the young shoots and sometimes the whole plant clothed with a white woolly tomentum. Leaves linear or linear-oblong, obtuse, entire or remotely toothed. Flower-heads, florets, and achenes of *M. integerrima*, but the disk-pappus more generally accompanied by a few very short bristles slightly dilated at the base.—Fl. Austr., l.c.

Hab.: Western Plains.

CALOTIS, R. Br.

SECTION ACANTHARIA.

C. microcephala, Benth., Fl. Austr. iii. 504. An erect much-branched undershrub not exceeding 6 or 8 in., more or less hoary-hirsute. Leaves oblong-cuneate, obtuse, entire or toothed, under $\frac{1}{2}$ -in. long, those of the branchlets much smaller. Flower-heads scarcely $\frac{1}{2}$ -line diameter. Involucral bracts narrow-oblong, obtuse. Fruiting heads scarcely more than hemispherical, and not 2 lines diameter. Achenes hirsute, obovate, flat but not winged. Pappus of 6 to 8 barbed awns, nearly equal, and all shorter than the achene.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 131.

OLEARIA, Mœnch.**SECTION ADENOTRICHE.**

O. magniflora, *F. v. M.*, *Fragm.* v. 80; *Fl. Austr.* iii. 480. A shrub of 3 or 4 ft. with divaricate branches, the whole plant glabrous and often glutinous. Leaves not numerous, narrow, cuneate, thick, obtuse and often 8-toothed at the end, the larger ones above $\frac{1}{2}$ -in. long, but mostly smaller. Flower-heads large, solitary, terminal. Involucre broadly turbinate, $\frac{1}{2}$ -in. diameter, the bracts numerous, much imbricate, the inner ones often coloured on the margin. Ray-florets 15 to 20, long and narrow; disk-florets numerous. Style-lobes long, with short obtuse appendages. Achenes long, glabrous. Pappus exceeding the involucre, a few of the outer bristles shorter than the others.—*Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 132.

SECTION MERISMOTRICHE.

O. rudis, *F. v. M.*, *Fragm.* v. 75; *Fl. Austr.* iii. 487. An erect shrub or undershrub, more or less scabrous or hirsute with rigid septate hairs or rarely nearly glabrous. Leaves obovate-oblong, oblong-cuneate or broadly lanceolate, obtuse or rarely acute, coarsely and irregularly toothed or nearly entire, mostly 1 to 2 in. long, usually contracted below the middle, but often broader and stem-clasping at the base. Flower-heads rather large, solitary or few together in a terminal corymb, the peduncles longer than the leaves, thickened under the head, without any or only a single linear bract. Involucre hemispherical, the bracts narrow, mostly acute, the inner ones about 4 lines long, the outer scarcely shorter. Ray-florets narrow, numerous; disk-florets scarcely so long as the involucre. Style-appendages very short. Achenes glabrous or nearly so, slightly compressed, strongly striate. Pappus-bristles nearly equal.—*Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 133.

PODOCOMA, Less.; R. Br.

(Name alluding to the beak of the achene, which forms a foot to the pappus.)

Involucre broadly ovoid or hemispherical, the bracts imbricated in several rows, narrow, acute. Receptacle without scales. Florets of the ray female, numerous, crowded in several rows, ligulate but very narrow. Disk-florets few, hermaphrodite, tubular but slender, usually 5-lobed. Anthers obtuse at the base. Style-lobes somewhat flattened, with narrow tips or appendages sometimes almost subulate. Achenes short, flat, produced into a long or short slender beak. Pappus of numerous capillary bristles. Perennial herbs. Leaves alternate. Flower-heads large, terminal, solitary, or very loosely corymbose.—*Fl. Austr.* iii. 492.

P. cuneifolia, *R. Br.*, *App. Sturt Exped.* 17; *Flora Austr.* iii. 493. Stems much branched and almost woody at the base, with

ascending leafy branches rarely above 4 or 5 in. high without the peduncle. Leaves crowded, oblong-cuneate or almost linear, acutely toothed or lobed at the end, narrowed into a petiole, mostly above 1 in. long, ciliate as well as the petiole and stems with long rigid white hairs. Peduncles much longer than the leaves. Involucral bracts numerous, linear-lanceolate, acute, the inner ones $\frac{1}{2}$ -in. long and coloured at the tips, the outer ones shorter, more or less glandular-pubescent as well as the peduncle. Ray-florets almost filiform, scarcely exceeding the pappus; disk-florets about as long as the involucre. Achenes small, obovate, glabrous or silky-hairy, the filiform beak three or four times as long as the achene itself. Pappus fine and white.—Fl. Austr. iii. 493.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 133.

TRIBE INULOIDEÆ.

PLUCHEA.

P. Dioscoridis, DC., Prod. v. 450; Fl. Trop. Afr. iii. 329. Shrub of 6 or more feet in height. Branches terete, striate, more or less puberulous or pubescent towards the extremities, rarely glabrous. Leaves oval-oblong, narrowly elliptical or linear-lanceolate, acute or subacute, narrowed towards the sessile or shortly petiolate often auriculate-cordate base, serrate, denticulate, or sub-entire, puberulous or glabrous, 1 to 2 in. long, $\frac{1}{4}$ to 1 in. wide, membranous. Flower-heads campanulate or ovoid, $\frac{1}{8}$ to $\frac{1}{2}$ in. wide, pedicelled or usually sessile, few together in stalked clusters, collected in ample, much-branched, corymbose or globose terminal panicles. Scales of involucre many-seriate; inner linear or linear-lanceolate, acute or apiculate, sometimes fimbriate-dentate, glabrous or nearly so, caducous; outer shorter, ovate, puberulous or pubescent, acute or obtuse, and apiculate, persistent. Receptacle narrow, naked. Achenes glabrous or nearly so, 4 to 7-ribbed, angles paler. Pappus of 1 series, sordid.—Fl. Trop. Afr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 133.

PTERIGERON, DC.

P. microglossus, Benth., Fl. Austr. iii. 532. Glabrous or slightly glandular-pubescent, the stems rigid, erect, nearly simple or somewhat corymbose, often under 6 in. high. Leaves from cuneate-oblong to linear-cuneate, entire or denticulate, under 1 in. long, rather rigid, narrowed towards the base, not decurrent. Flower-heads broadly ovoid, about $\frac{1}{2}$ -in. long, the inner involucral bracts very acute. Florets numerous, not exceeding the involucre, those of the ray scarcely so long, with a small, narrow, entire or bifid concave lamina. Achenes slightly hairy. Pappus almost plumose.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 133.

LEPTORHYNCHUS, Less.

L. pulchellus, *F. v. M.*, *Fragm.* i. 53; *Fl. Austr.* iii. 610. An erect corymbosely branched annual, rarely 6 in. high, the lower part of the stem sometimes hard so as to appear woody. Leaves linear, acute. Flower-heads small, and rather numerous on filiform peduncles. Involucre broadly turbinate or almost hemispherical, about 3 lines diameter, the bracts imbricate in many rows, with scarious ciliate margins and very small coloured tips, the inner ones stipitate. Florets larger than the involucre, the outer female ones few and slender. Achenes contracted into a short but distinct beak. Pappus-bristles barbellate from the base, 2 or 3 to the achenes of the female florets, 4 or 5 to the others.—*Fl. Austr.*, l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 135.

HELICHRYSUM, Vaill.

H. rutidolepis, *DC.*, *Prod.* vi. 194; *Fl. Austr.* iii. 618. A decumbent or loosely branched perennial, almost woody at the base, with a little loose deciduous wool. Leaves oblong, lanceolate or linear, acute or mucronate, mostly narrowed below the middle, but stem-clasping at the base, $\frac{3}{4}$ to nearly 2 in. long. Flower-heads solitary on almost leafless peduncles. Involucre hemispherical, not exceeding $\frac{1}{2}$ -in. diameter and often smaller, the bracts spreading in many rows, the outer short ones tinged with brown and passing into the inner or intermediate ones, which have a more distinct obtuse yellow lamina, rather longer than the florets, and often transversely wrinkled. Florets very numerous, a few of the outer ones female and almost or quite without pappus, the others hermaphrodite. Achenes glabrous. Pappus-bristles minutely serrulate or simple at the base, more distinctly but sparingly barbellate towards the end.—*Fl. Austr.*, l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 136.

H. podolepideum, *F. v. M.*, *Rep. Babb. Exped.* 13; *Fl. Austr.* iii. 624. An undershrub densely clothed with a cottony wool. Leaves petiolate, obovate or oblong, 1 to 2 in. long, soft and thick. Flower-heads on almost leafless peduncles of 2 to 4 in. Involucre broadly campanulate, $\frac{1}{2}$ to nearly $\frac{3}{4}$ in. diameter, the bracts numerous, appressed, narrow, with narrow acute or slightly jagged scarious laminae, the longest slightly exceeding the florets, of a pale straw-colour or dirty white. Florets exceedingly numerous, all (or nearly all ?) hermaphrodite. Achenes glabrous. Pappus-bristles not very numerous, shortly barbellate.—*Fl. Austr.*, l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 137.

GNEPHOSIS, Cass.

G. cyathopappa, *Benth.*, *Fl. Austr.* iii. 571. Rigid erect, and corymbosely branched, some specimens appearing annual and simple at the base, others with a hard and woody base, with numerous stems,

but none above 6 in. high, all nearly glabrous or woolly-tomentose, especially about the inflorescence. Leaves linear, rather short. Clusters of flower-heads turbinate, very numerous in a dense corymb, surrounded by a few small outer empty bracts like the subtending ones, but without the yellow appendage. Receptacle small, convex or obovoid. Partial heads 2-flowered, very shortly stipitate, and usually 2 within the same subtending bract. Bracts scarcely woolly, narrow, with a short broad yellow deciduous appendage, 4 or 5 outer ones of each involucre and the subtending one narrower and more persistent than the 4 or 5 inner very deciduous ones. Pappus cup-shaped, as long as the slender part of the floret, slightly toothed or jagged, falling off with the corolla.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 140.

CALOCEPHALUS, R. Br.

C. Sonderi, *F. v. M.*, Rep. Babb. Exped. 13 ; Fl. Austr. iii. 575. An erect branching loosely woolly annual, with a hard stem, attaining sometimes above 1 ft. in height. Leaves alternate, linear, the upper ones short and decurrent. Clusters of flower-heads yellow, ovoid or globose, rarely 5 lines long. Receptacles cylindrical, branched. Partial heads stipitate, 2 or 3-flowered. Subtending and outer involucre bracts 2 or 3, in the lateral heads more numerous, in the terminal one narrow, but scarious and woolly-ciliate with small lamina or appendage, a few inner ones broader, less ciliate, with a more prominent yellow lamina. Pappus of several very unequal scales united in a ring or cup at the base, and more or less produced into awns or bristles of which the longer ones are plumose at the end.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 140.

C. Dittrichii, *F. v. M.* in Uhworm's Bot. Centralbl. xxvii. 300 ; 2nd Syst. Cens. Austr. Pl. 140. (After Lieut. Dittrich, of Mr. Lindsay's Exped.) Annual, woolly-tomentose, neither tall nor much branched ; leaves scattered, linear, blunt, nearly flat or somewhat channelled, 4 to 8 lines long, slightly broader at the base ; glomerules rather small, terminal, solitary, depressed-globular, the summit of the branchlets forming often a short peduncle ; general involucre not exceeding the glomerule, constituted of several rows of bracts ; the latter green, narrow, woolly and terminated by a minute scarious yellow glabrous ovate or cordate-roundish lamina ; general receptacle small, not conspicuous elevated, bearing numerous flower-heads ; bracts constituting the ultimate involucre several, oblong or linear-cuneate, hyaline, one-nerved, woolly only under the small yellow roundish radiating lamina ; flowers minute, 11-24 in each head ; corolla slender, gradually widening upwards ; achenes pale-brown, truncate-ellipsoid, subtle-papillular ; pappus very tender, white, formed of very few laxly plumous-bearded somewhat intricate bristles, these at the summit slightly tufted, at the very base connate. On

superficial inspection this plant might easily be passed as an *Angianthus* or *Craspedia*, especially as it was found accompanied by a small variety of *C. pleiocephala*.—*F. v. M.*, l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 140.

PODOLEPIS, Labill.

P. Siemssenia, *F. v. M.*, Fl. Austr. iii. 607. A slender glabrous much-branched annual of $\frac{1}{2}$ to 1 ft. Leaves linear. Flower-heads small, on filiform peduncles. Involucre turbinate, about 3 lines long, the scarious laminæ of the bracts oblong, imbricate, the outer ones short. Ray-florets 3 or 4-lobed, ligulate or irregular, exceeding the longest involucre bracts; disk-florets with 5 narrow lobes but often slit nearly to the base. Pappus-bristles not numerous, exceedingly fine, not perceptibly barbellate, shorter than the corolla.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 135.

TRIBE HELIANTHOIDEÆ.

AMBROSIA, Linn.

(Name of food of the heathen divinities, as nectar was their drink.)

Capitula unisexual; of male florets small, spicate or racemose, many-flowered, with a broadly hemispherical, gamophyllous, shortly lobed, herbaceous involucre; receptacle nearly plane, with or nearly without filiform paleæ; female capitula sessile or clustered in the upper axils, 1-flowered, apetalous. Male corolla white, regular 5-fid; anthers free or nearly so, base entire. Female involucre ovoid or subglobose, closed over the achene, usually with 4 to 6 tubercles or short spines, narrowed above into a short beak. Herbs or undershrubs, more or less hairy, with alternate (or opposite) bipinnately divided leaves.—*Oliver* in Fl. Trop. Afr.

A. maritima, *Linn.* in Fl. Trop. Afr. iii. 370. (Name from habitat of plant, which is often found growing near the sea.) A coarse annual, woody below, 1 to 3 ft. high (in Queensland, 6 to 8 ft.), whole plant usually very hairy and hoary, much branched. Leaves ovate, bipinnatifid, 1 to 3 in. long; segments obtuse, sometimes toothed. Capitula subsessile, $\frac{1}{2}$ to $\frac{3}{4}$ in. diameter, 15 to 20-flowered, in dense spikes or racemes, male at the top and often female below, arranged in a pyramidal or corymbose terminal panicle, leafy at least below. Male involucre crenate, shortly hemispherical, hispid with upcurved scattered hairs; fruiting involucre somewhat turbinate and angular, with 4 or 5 horns at the top.—*Oliver*, l.c.

This tropical African plant, which is widely spread throughout the Mediterranean region and most warm countries, has during the past year been introduced in fodder seeds, and unfortunately, from all accounts, has taken but too kindly to our soil, and doubtless in a very few years will be as wide-spread as its ally the Bathurst Burr.

TRIBE SENECTIONIDEÆ.

STUARTINA, Sond.

(After C. Stuart, a botanical collector.)

Involucre ovoid, the bracts imbricate, appressed, without appendages, or the inner ones with recurved horn-like tips. Receptacle without scales. Florets few, those of the circumference female, filiform, those of the disk very few, hermaphrodite, 4 or 5-toothed. Anthers with small fine tails. Style-branches terete, truncate. Achenes obovoid, oblong. Pappus none. Annuals, with the habit of *Gnaphalium*.—Fl. Austr. iii. 656.

S. Muelleri, *Sond.* in *Linnæa* xxv. 522; Fl. Austr. iii. 657. A small diffuse or slender annual rarely 6 in. high. Leaves on long petioles, nearly orbicular, about $\frac{1}{2}$ -in. diameter, woolly-tomentose or at length glabrous above. Flower-heads very small, in little globular clusters, sessile amongst floral leaves similar to those of the stem, the petioles much longer than the clusters. Involucres narrow, scarcely 1 line long, surrounded by a tuft of long woolly hairs, the bracts appressed, but after flowering 1 to 3 of the inner ones are usually produced into recurved horns. Florets from 5 to 7, of which 1 or 2 in the centre are hermaphrodite. Achenes glabrous or papillose.—Fl. Austr. iii. 657.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 314.

CERATOGYNE, Turcz.

(Alluding to the horn-like style-lobes.)

Involucre cylindrical, of few oblong bracts, green with scarious edges. Receptacle without scales. Florets of the circumference few, female, filiform, 2 or 3-toothed or shortly ligulate; disk-florets few, hermaphrodite, sterile, tubular, 3 or 4-toothed. Anthers short, thin (obtuse at the base?) Style-lobes slender, acute, hispid. Achenes of the ray large, flat, bordered by herbaceous wings, involute on the margins and produced at the top into incurved auricles; those of the disk abortive. Small annuals. Leaves alternate. Flower-heads small, terminal or axillary.—Fl. Austr. iii. 555.

C. obionoides, *Turcz.* in Bull. Mosc. 1851, ii. 69; Fl. Austr. iii. 555. An annual with erect slender branching stems not exceeding 6 in., and often much smaller, more or less hirsute with soft simple hairs. Leaves petiolate, obovate or oblong, under $\frac{1}{2}$ -in. long, the upper ones small, narrow, and sessile. Flower-heads nearly sessile or on very short axillary leafy peduncles. Involucre a little more than 1 line long, of 4 to 6 oblong bracts. Florets about as long as the involucre, of which 3 or 4 are female and about as many sterile central ones. Achenes of the female florets very soon growing out to at least twice the length of the involucre, remarkable for their broad herbaceous wings, the incurved ciliate auricles at the top as long as the corolla.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 142.

SENECIO, Linn.

S. odoratus, *Hornem.*, DC. Prod. vi. 371; Fl. Austr. iii. 671. A stout erect perennial of 2 to 3 ft., glabrous or rarely with a loose white deciduous wool on the under side of the leaves. Leaves oblong or lanceolate, irregularly toothed, often narrowed below the middle and sometimes almost petiolate, but dilated and stem-clasping, with toothed auricles at the base, attaining 2 to 4 in. in length, the upper ones and those of the side branches sometimes almost linear. Flower-heads small and numerous, in dense corymbs at the ends of the branches, forming usually a large corymbose panicle. Involucre cylindrical, rarely exceeding 2 lines, of about 8 bracts, with 1 or 2 small outer ones rarely wanting. Florets about 10 to 12, all tubular, considerably longer than the involucre when fully out. Achenes slightly pubescent, the pappus inserted on a callous ring more prominent than in the allied species.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 142.

S. anethifolius, *A. Cunn.* in DC. Prod. vi. 371; Fl. Austr. iii. 672. A glabrous branching shrub (or undershrub?) attaining 4 or 5 ft. Leaves crowded, pinnately divided into long narrow-linear or almost filiform segments, either entire or again bearing a few equally narrow lobes. Flower-heads small, numerous, in a very compact corymb. Involucre cylindrical, above 2 to nearly 3 lines long, of about 8 bracts, without any or with 1 or 2 very small outer ones. Florets about 10 or 12, all tubular, longer than the involucre. Achenes glabrous or scabrous-pubescent.—Fl. Austr., l.c.

Hab.: Southern Queensland.

ALLIANCE CAMPANALES.

Order STYLIDIEÆ.

STYLIDIUM, Swartz.

S. graminifolium, *Swartz.* (Hair-trigger Flower.) The colour of the flower of this plant has been found by Mr. W. R. Kefford at Cleveland to vary from the usual deep rose to pure white.

Order GOODENOVIEÆ.

LESCHENAULTIA, R. Br.

L. divaricata, *F. v. M.*, Fragm. iii. 38, 167; Fl. Austr. iv. 43. Summits of the plant leafless, rigid, flexuous, intricately branched, the leaves replaced by small, oblong-linear, distant scales. Calyx-tube 2 to 3 lines long, the lobes narrow, about half as long. Corolla yellow, 6 to 8 lines long, the lobes about as long as the tube, all narrow and expanded, the 3 lower ones winged, the 2 upper ones lanceolate-falcate, not winged. Fruit often above 1 in. long, ripening but very few large thick seeds, and contracting into a neck at the top and also between the seeds.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 147.

GOODENIA, Sm.

G. pusilliflora, *F. v. M.*, Key to Syst. Vict. Pl. i. 354. Annual scantily beset with spreading hairs, the lower leaves crowded, pinnatifid or at times shortly lobed, the stem-leaves only present at the inflorescence and small, from rhomboid-cuneate to lanceolate with few teeth or entire. Flowers in erect corymbose racemes without bracteoles; calyx-lobes broadish, expansions of the corolla from yellow to white or purplish. Fruit globular-ovate, nearly 1-celled; seeds few, rather large, collateral, blackish when ripe, surrounded by pale broadish margin.—*F. v. M.*, l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 150.

SCÆVOLA, Linn.

SERIES POGOGYNÆ.

S. æmulum, *R. Br.*, Prod.; Fl. Austr. iv. 99. Herbaceous, diffuse, ascending or rarely erect, rather coarse, clothed with rigid mostly appressed hairs or nearly glabrous. Leaves petiolate, obovate or cuneate, coarsely toothed, the lower ones sometimes 2 or 3 in. long, the upper ones smaller, the floral ones sessile, ovate-oblong or almost lanceolate, entire or with a few teeth. Flowers sessile in a spike often 8 to 10 in. long, and much interrupted. Bracteoles linear or linear-lanceolate. Calyx-lobes exceedingly short. Corolla hairy outside, 8 to 10 lines or sometimes nearly 1 in. long. Ovary 2-celled. Style glabrous or hairy, but always with a dense tuft of rigid often purple hairs at the top as long as the indusium. Fruit small, ovoid-rugose.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 148.

S. scandens (n. sp.) (Referring to the climbing habit of plant.) A large climbing plant rambling over the surrounding shrubs to the height of 10 or 12 ft. Leaves opposite, bordered with sharp, distant, small teeth, ovate, 3 or 4 in. long with narrow elongated apex and short petiole. Flowers solitary, or 2 or 3 on a short peduncle. Calyx-tube about 2 lines long, with minute teeth. Corolla $\frac{1}{4}$ -in. long, split open on one side to the base, the inside lined with woolly hairs, the outside glabrous and purplish, except the wavy edges which are bright-yellow. Stamens scarcely exceeding the corolla-tube in length. Style narrowly winged, shortly incurved at the top; indusium hairy on the back, besides the dense ring of silky-white hairs surrounding the cup. Fruit not seen.

Hab.: Bellenden-Ker, at about 3,000 ft.

DAMPIERA, R. Br.

SECTION EUDAMPIERA.

D. diversifolia, *De Vr.* in Pl. Preiss. i. 403; Fl. Austr. iv. 119. A prostrate perennial or undershrub, extending sometimes to a considerable breadth, with numerous short, dense, leafy branches, quite glabrous in every part. Radical leaves oblong-spathulate or

oblanceolate, 1 to 1½ in. long, all the others lanceolate, oblanceolate, or linear, rarely above ½-in. long, coriaceous, acute, entire or minutely toothed, often concave like those of EPACRIDÆÆ. Flowers blue, differing from all other species in being quite glabrous outside, on short axillary peduncles or branchlets, with 1 or 2 leaves and a pair of bracteoles close under the flower. Calyx-lobes ovate-triangular, shorter than the persistent base of the corolla. Corolla about ½-in. long. Ovary 1-celled, with 1 straight ovule erect from the base.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 147.

Order CAMPANULACEÆ.

LOBELIA, Linn.

L. purpurascens, R. Br.

Dr. Thos. L. Bancroft finds this species, which is often a troublesome garden weed, to possess the same properties as *L. inflata*, Linn.—a weed of the United States of America, and there known as "Indian tobacco," the properties of which, according to Dr. Lindley, Fl. Medica, page 405, are—"Acrid narcotic and most powerful emetic, used in asthma with great advantage. In small doses it is expectorant and diaphoretic, exciting expectoration without the pain of coughing. In such doses as a common teaspoonful of the seeds and leaves, in which quantity irregular practitioners have ventured to give it, it frequently proves fatal in 5 or 6 hours. It has been used instead of tobacco, in the form of enema, in strangulated hernia."

SERIES HETEROMERÆ.—ALLIANCE ERICALES.

Order EPACRIDÆÆ.

TRIBE STYPHELIEÆ.

LEUCOPOGON, R. Br.

SECTION HETERANTHESIS.

L. pleiospermus, F. v. M., Fragm. vi. 41; Fl. Austr. iv. 207. An erect bushy shrub with pubescent branches. Leaves oblong-linear, rather obtuse, with a short rigid point, concave, finely veined underneath, mostly about ½-in. long. Racemes terminal or in the uppermost axils, rather loose, but rarely exceeding the leaves, the flowers small and pedicellate. Bracts and bracteoles small, broad, obtuse, striate, all at the base of the pedicels. Sepals about ½-line long, broad, obtuse, striate. Corolla 1½ line long; the tube twice as long as the calyx, with the exserted part campanulate, the lobes short. Anthers attached near the top, obtuse without sterile tips. Hypogynous disk truncate. Ovary short, broad, 7 to 10-celled; style short. Fruit depressed-globular, smooth, about 2 lines diameter.—Fl. Austr. iv. 207.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 179.

MONOTOCA, R. Br.

M. lineata, R. Br., Prod. 547; Fl. Austr. iv. 230. A tall shrub or small tree closely resembling *M. elliptica* in foliage, but the peduncles are all short, axillary (or lateral), and few-flowered. The

flowers smaller and sessile or nearly so within the very small subtending bract, which is usually persistent or sometimes very minute, or even quite deficient, when the spike is reduced to a single flower. Corolla more open than in *M. elliptica*, with a very short tube, so as to be almost rotate. Fruit ovoid, about 1 line long (or more, round, and nearly 2 lines diameter, 5-celled, and rich red colour).—Fl. Austr. l.c., except the words in parentheses.

Hab.: Bartle Frere.

J. J. Labillardière, in Pl. Nov. Holl. i. 45, is the only one to notice that the fruit of this small tree has 5 cells, which I found to be the case in the specimen I examined from Bartle Frere. I think this is the first time the plant has been found out of Tasmania. The fruit of our plant is roundish, about 2 lines in diameter, and of a rich red colour. It is strange that neither Dr. Hooker in the Tasmanian Flora, nor Mr. Benthham in the Flora Australiensis, gives the number of cells in the fruit; and both refer to Labillardière's description and figure in which the 5 cells are mentioned and shown under his name of *Styphelia glauca*. It is probable that in the typical specimen received by Robt. Brown the fruit was 1-celled by abortion, as stated to be sometimes the case by Labillardière.

TRIBE EPACREÆ.

DRACOPHYLLUM, Labill.

D. Sayeri, *F. v. M.*, Austr. Journ. of Pharm. 1887. The following may be added to the description given by Baron von Mueller, in the Australasian Journal of Pharmacy, March, 1887. Trunk attaining a diameter of 10 in.; bracts 3 in. long, white, shaded with deep rose.

Hab.: Bellenden-Ker.

There are probably two varieties of this species, which may be distinguished by the flowers of the one having a white tube and horizontal rose-coloured lobes, which seem to become somewhat erect in decay. Of the other the flowers are all white, and the corolla-lobes are closely reflexed, and remain so in decay. I found this distinction on all the plants examined, even when growing beside each other.

ALLIANCE PRIMULALES.

Order MYRSINÆ.

MESA, Forsk.

M. haplobotrys, *F. v. M.*, Fragm. v. 161; Fl. Austr. iv. 273. A small tree, quite glabrous. Leaves narrow-ovate to elliptical-oblong, acuminate, entire or irregularly sinuate-toothed, narrowed into a petiole, which is usually short, distantly penniveined with few cross veinlets, 3 to 6 in. long. Flowers in simple racemes, longer or rather shorter than the leaves. Pedicels very short. Calyx-tube very short and adnate to the base of the ovary, but enlarging after flowering; lobes broad, almost acute, about $\frac{1}{2}$ -line long. Corolla-tube broad, nearly as long as the calyx, the lobes broad, much imbricate, at least as long as the tube. Anthers ovate, as long as the flattened filaments. Ovary at the time of flowering more than half superior, tapering into a short style. Young fruit nearly globular, crowned by the closed calyx-lobes.

Hab.: Rockingham Bay.—Fl. Austr., l.c.

ALLIANCE EBENALES.

Order STYRACEÆ.

SYMPLOCOS, Linn.

S. paucistamineus, *F. v. M. et Bail.* A tall shrub, branchlets as well as the petioles, peduncles, and bracts densely beset with spreading brownish hair. Leaves from 3 to 6 in. long, nearly ovate or verging somewhat into a lanceolar form, variously acuminate, remotely or imperfectly serrulated, dark-green above and soon almost glabrous, beneath pale-green and there the keel and main venules bearing copious brownish hairs, chartaceous in texture. Petioles short. Flowering spikes attaining 2 in. in length but frequently shorter, terminal, axillary or lateral, solitary or fascicular, or panicular-connected. Bracts and bracteoles very small and acute. Flowers quite small. Calyx-lobes semi-lanceolate or blunt-elliptical, the outside scantily beset with hairlets. Corolla only about $\frac{1}{2}$ -in. long, pale-coloured, glabrous, the segments hardly connected at the base, about twice as long as the calyx. Stamens 15 or even fewer, mostly shorter than the corolla, inserted near its base. Anthers nearly ovate, yellowish, their insertion suprabasal. Style glabrous, about $\frac{1}{4}$ -in. long. Stigma dilated, somewhat 3-lobed. Ovary 3-celled. Fruit not seen.

Hab. : Harvey's Creek.—*Bellenden-Ker Expedition.*

This species is allied to *S. macrophylla*, *S. ferruginea*, *S. racemosa*, and *S. rosea*, but differs from these species, as from most other congeners already, in the reduced number of the stamens ; in that respect it comes near *S. oligandra*, which, however, is a species with glabrous comparatively small leaves, very short inflorescence, and still smaller flowers.

SERIES BICARPELLATÆ.—ALLIANCE GENTIANALES.

Order APOCYNACEÆ.

TRIBE ECHITIDEÆ.

LYONSIA, R. Br.

L. straminea, *R. Br.*, Prod. ; Fl. Austr. iv. 321. A woody climber, scaling trees to a great height, the pendulous branches rooting when they reach the ground. Leaves shortly petiolate, ovate-lanceolate or lanceolate, often acuminate, glabrous, smooth and shining above, paler underneath, the primary veins oblique and usually prominent underneath, 2 to 3 or sometimes 4 in. long. Flowers in loose pedunculate trichotomous cymes or panicles, terminal on the young shoots or axillary on the older ones, minutely pubescent. Calyx-segments narrow, acute, about $\frac{1}{2}$ -line long. Corolla-tube about as long as the calyx ; lobes lanceolate, acute, about twice as long as the tube, bearded inside at the base with inflexed hairs. Stamens inserted at the base of the corolla-tube ; anthers linear, connivent in an exserted cone or cylinder, the basal lobes long and linear. Hypogynous scales large, obtuse. Ovary pubescent. Fruit 2 or 3 in. long, tardily dividing into rather thin follicles, the 2 placentas closely connate by the backs and separating from the follicles in a single plate.—Fl. Austr., l.c.

Hab. : Mount Perry.—*J. Keys.*

Order LOGANIACEÆ.

FAGRÆA, Thunb.

F. racemosa, Jack. in Roxb. Fl. Ind. ed. Wall. ii. 35; Fl. Austr. iv. 367. A tall shrub or small tree, quite glabrous. Leaves oval-oblong or rarely ovate, shortly acuminate, rounded at the base, mostly 8 in. to 1 ft. long, on petioles of from $\frac{1}{4}$ to 1 in., the stipules forming a short interpetiolar sheath or ring. Flowers of a dirty yellowish white, in clusters or cymes along the simple rhachis of a raceme-like, terminal, nodding panicle, which is pedunculate between the last pair of leaves, and varies from 2 to 3 in. to above 1 ft. in length. Pedicels thick, 2 or 3 lines long. Calyx-lobes broad, 1 to $1\frac{1}{2}$ line long. Corolla-tube about $\frac{3}{4}$ -in. long, the throat broadly campanulate, the lobes broad, 3 to 4 lines long. Ovary with 2 or rarely 3 parietal placentas, often short in the bud, but meeting in the centre and completely dividing the ovary into 2 or 3 cells after the flowering is over.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 152.

Some fruit and leaf specimens which I brought from Bellenden-Ker, Baron Mueller thinks, may belong to this tree. They, however, differ from all species of which I have descriptions, but not having seen flowers I fully agree with the Baron that it would be inadvisable to give it a distinctive name. It forms a small tree, say 30 ft. high, with wide-spreading head with the leaves clustered at the ends of the branches. Leaves lanceolate to oblong, much tapering towards the base, 6 to 9 or more inches long, coriaceous, on petioles of 1 in. Fruit in terminal short racemes or panicles, nearly globose, over 1 in. diameter, bright-crimson outside, white within, containing numerous seeds.

STRYCHNOS, Linn.

S. Bancroftiana (n. sp.) Snakewood. (After Dr. Joseph Bancroft, who has done so much to make known the medicinal properties of our indigenous plants.) Stems climbing, terete, often reaching the height of 40 or 50 ft., diameter of lower part 2 in. In the upper portion, especially near the inflorescence, furnished with curved tendrils, which are curved like rams' horns, sometimes in pairs. Leaves opposite, glabrous, ovate-acuminate, 4 to 7 in. long, $1\frac{1}{2}$ to 3 in. broad, triplinerved with often another lower pair forming an intramarginal nerve, and prominently reticulated; texture thin, cartilaginous, petioles scarcely $\frac{1}{2}$ -in. long. Inflorescence axillary, racemose, or in racemose panicles 3 or 4 in. long. Flowers not seen. The persistent calyx under the fruit of 5 blunt lobes about a line long and broad. Fruit a globular brown berry, $\frac{1}{4}$ to 1 in. diameter, bearing the erect style. Seeds flat, orbicular, from 1 to 4 in a fruit embedded in a mealy pulp.

Hab.: Tringilburra Creek and Mulgrave River.

I gave a few seeds of this plant to Dr. Thos. L. Bancroft for examination for active properties, and the following is his note:—"The seeds of the new *Strychnos*, like those of the other two Queensland species, are bitter; but they do not contain strychnine or, indeed, any poisonous substance—not at any rate in sufficient quantity, when in the form of an extract, to kill frogs."

ALLIANCE POLEMONIALES.

Order BORAGINEÆ.

TRIBE HELIOTROPIEÆ.

HELIOTROPIUM, Linn.

SECTION EUHELIOTROPIUM.

H. asperrium, *R. Br.*, Prod.; Fl. Austr. iv. 394. A perennial with erect or ascending stems of 1 to 1½ ft., the branches and foliage very scabrous and sprinkled with rigid spreading hairs. Leaves shortly petiolate, oblong or lanceolate, obtuse, with undulate revolute margins but not rugose, 1 to 2 in. long. Spikes short and dense, once or sometimes twice forked, rarely simple, without bracts. Calyx-segments linear or lanceolate, hispid, 2 lines long. Corolla-tube shortly exceeding the calyx, the throat glabrous inside; lobes much plicate, very broad, expanding to ½-in. diameter. Anthers oblong, very shortly acuminate. Style filiform; stigmatic cone long and narrow, but shorter than the style.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 176.

TRIBE BORAGEÆ.

ERITRICHIMUM, Schrad.

Calyx deeply divided into 5 segments. Corolla with a cylindrical tube, the throat with 5 minute gibbosities or scales or quite naked, the limb spreading, 5-lobed. Stamens inserted in the tube, the anthers included. Ovary 4-lobed; style filiform, inserted between the lobes, with a small usually capitate stigma. Nuts 4, rugose or reticulate, erect, attached to the shortly pyramidal or convex receptacle by an oblique areole, the inner angle prominent. Seeds without albumen; radicle short. Herbs with the habit, foliage, and flowers nearly of *Myosotis*, but the inflorescence usually with bracts.—Fl. Austr. iv. 406.

E. australasicum, *A. DC.*, Prod. x. 134; Fl. Austr. iv. 406. Stems usually numerous, tufted, diffuse or ascending, rarely nearly simple and erect, mostly under 6 in. long, the whole plant hispid, the hairs often yellowish on the young shoots. Leaves linear, obtuse, the lower ones sometimes almost opposite, rarely exceeding ½-in., the upper ones smaller. Flowers very small (white?) nearly sessile in the axils of the bracts, forming simple one-sided leafy spikes. Calyx-segments very hispid, linear, scarcely 1 line long. Corolla scarcely exceeding the calyx, the lobes shorter than the tube. Anthers small. Style short. Nuts shorter than the calyx, rugose, with much-raised reticulations.—Fl. Austr. iv. 406.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 175.

Order CONVOLVULACEÆ.

TRIBE CONVOLVULÆ.

IPOMÆA, Linn.

I. bona nox, Linn., Sp. Pl. 228. Moon-flower. A tall glabrous twiner, the stems smooth or muricate. Leaves cordate, ovate, entire or lobed, 3 to 8 in. long, acute, the point sometimes much elongated. Peduncles 1 to 5-flowered; flowers large, white; bracts caducous. Sepals $\frac{1}{2}$ -in., usually ovate, obtuse, mucronate. Corolla-tube about 3 in. long, limb 3 to 5 in. diameter. Anthers shortly exerted or sub-included. Capsule narrowed upwards; peduncle at length somewhat thickened.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 159, but probably only a stray from garden culture become naturalised like *I. purpurea*, Roth., *I. Quamoclit*, Linn., *Argyrea speciosa*, Sweet, and others.

I. flava, F. v. M., Fl. Austr. iv. 424. A rather slender glabrous climber. Leaves petiolate, cordate-ovate, mostly acuminate, with large rounded or angular basal auricles, or the upper ones lanceolate-sagittate, 1 to 2 in. long. Peduncles rather long, bearing an irregular dense cyme of very few yellow or nearly white flowers on short pedicels or sometimes the flower solitary. Bracts very small. Sepals ovate or oblong, obtuse, rigid but smooth and almost membranous, 3 or 4 lines long. Corolla campanulate, apparently about 1 in. long. Anthers rather large. Capsule globular, coriaceous, at length wrinkled, about 4 lines diameter. Seeds glabrous.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 160.

I. cataractæ, Endl., Prod. Fl. Norf. Isl. 53. Stems twining, silky-hairy; leaves cordate, entire or 3-lobed, silky-tomentose on the under side, the lateral lobes obtuse, rounded at the base, the middle lobe acuminate or somewhat obtuse. Peduncles hairy, bearing 3 flowers; involucre of several linear leaves of equal length with the calyx; calyx-lobes ovate-acuminate.—Endl., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 160.

Order SOLANACEÆ.

TRIBE SOLANÆÆ.

SOLANUM, Linn.

S. simile, F. v. M., Trans. Phil. Soc. Vict. i. 19; Fl. Austr. iv. 418. An erect, glabrous, unarmed undershrub or shrub, closely resembling entire-leaved forms of *S. aviculare*, usually not so stout, although attaining 4 or 5 ft. Leaves lanceolate or linear, usually obtuse, contracted into a short petiole, not decurrent, entire or rarely with 1 or 2 lobes on each side near the base, mostly 2 or 3 in. long. Flowers smaller than in *S. aviculare*, few in lateral racemes, with a very short or sometimes scarcely any common peduncle. Calyx and corolla

otherwise nearly as in *S. aviculare*, the corolla not much above $\frac{1}{2}$ -in. diameter. Anthers obtuse, parallel, opening at length down the sides. Berry globular, ovoid or oblong, usually smaller than in *S. aviculare*, and purple. Seeds large.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 161.

***S. eremophilum*, F. v. M.** in Linnæa xxv. 432; Fl. Austr. iv. 459. A perennial or undershrub, either small and diffused or tall and erect, the branches, foliage, and inflorescence hirsute with stellate hairs but scarcely tomentose. Prickly rigid and rather long on the stem, leaves, and calyxes. Leaves petiolate, broadly ovate, obtuse, undulate and broadly sinuate-lobed, green on both sides, scarcely above 1 in. long in the specimens seen. Racemes short and few-flowered, the pedicels at length above $\frac{1}{2}$ -in. long. Calyx broadly campanulate, above 3 lines long at the time of flowering, divided to below the middle into broadly lanceolate membranous lobes, much enlarged after flowering. Corolla about $\frac{3}{4}$ -in. diameter, with broad acute lobes, not reaching to the middle. Anthers tapering upwards. Berry globular, almost covered by the enlarged slightly prickly calyx.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 162.

ALLIANCE PERSONALES.

Order SCROPHULARINEÆ.

GLOSSOSTIGMA, Arn.

***G. Drummondii*, Benth.** in DC. Prod. x. 426; Fl. Austr. iv. 502. A minute glabrous plant, creeping and rooting at the nodes. Leaves linear-spathulate or oblong, entire, 1 to 2 lines long, but narrowed into a slender petiole sometimes much longer than the lamina. Pedicels usually longer than the leaves. Calyx scarcely above $\frac{1}{2}$ -line long, 3-lobed, one lobe often longer than the others. Corolla slightly exceeding the calyx, with short rounded lobes not fringed. Stamens 4, as long as or longer than the corolla. Capsule nearly globular, not exceeding the calyx, opening loculicidally in 2 valves.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 164.

RHAMPHICARPA, Benth.

Calyx campanulate, 5-lobed. Corolla-tube long and slender, straight or slightly curved; lobes 5, obovate, nearly equal or the 2 upper (inside in the bud) rather smaller. Stamens 4, in pairs; anthers 1-celled, vertical, obtuse. Capsule ovate, compressed or turgid, acuminate, with a straight or oblique beak, opening loculicidally in 2 valves. Erect branching glabrous herbs, drying black and perhaps parasitical. Lower leaves opposite, upper ones alternate, entire or the lower ones pinnately divided. Flowers in terminal racemes, usually without bracteoles.—Fl. Austr. iv. 517.

R. longiflora, *Benth.* in *Comp. Bot. Mag.* i. 368; *Fl. Austr.* iv. 518. An erect slender but rigid branching annual, more or less scabrous, from under 6 in. to nearly 1 ft. high. Leaves pinnately divided into linear-subulate segments, rather short and distant, or sometimes again toothed or pinnate, the whole leaf usually above 1 in. long. Flowers in the upper axils, on pedicels of $\frac{1}{4}$ to 1 in., without bracteoles. Calyx broadly campanulate, 2 to 3 lines long, the lobes ending in fine points. Corolla-tube slender, about 1 in. long when perfect, with a campanulate throat, the lobes broad, varying in size, but always 2 or 3 times shorter than the tube. Capsule ovate, acuminate, without prominent margins, the beak nearly straight or somewhat oblique in the Australian form.

Hab.: Given as a Queensland plant in *Muell. 2nd Syst. Cens. Austr. Pl.* 165.

Order GESNERACEÆ.

TRIBE CYRTANDREÆ.

CYRTANDRA, Forst.

Calyx free, tubular, ovoid-campanulate or roundly expanded, 5-fid-or 5-partite. Corolla-tube cylindrical or funnel-shaped, 2-lipped, deciduous or persistent; teeth 5. Stamens, 2 perfect, 2 or 3 rudimentary, included or shortly exerted; filaments arcuate, anthers connivent or coherent, cells parallel or divergent. Disk annular or cupulate. Ovary superior, ovoid or oblong; style long or short; stigma dilated, concave, or more or less distinctly 2-lipped. Fruit fleshy, indehiscent, globose, ovoid-oblong or linear. Seeds very numerous, minute, usually dotted. Small or large shrubs or trees, villous or glabrous. Leaves opposite, equal or unequal, or one of each pair rudimentary or wanting. Flowers usually white or yellow, in axillary fascicles, capitate or cymose. Bracts small or the exterior ones large, distinct or connate in an involucre.

C. Baileyi, *F. v. M.* (n. sp.) A soft-wooded shrub of about 8 ft. in height. Branchlets when young somewhat beset with brown interwoven hairlets. Leaves alternate, rather large, attaining 8 in. in length, the opposite rudiments about $\frac{1}{4}$ -in. long, short-stalked, thinly chartaceous, from ovate to elongate-lanceolate, at the base almost cuneate but inequilateral, on both sides dull-green though pale beneath, nearly glabrous, narrow or short-acuminate, towards the upper end undular-denticulated, their primary lateral veinlets slightly prominent, the ultimate venules concealed, the opposite rudiment bract or stipule-like, about as long as the leafstalk or shorter, semilanceolate-linear, pointed. Flowers nearly white, singly, opposite to a leaf, glabrous. Pedicels thin, scarcely as long as the calyx or at times longer, say about $\frac{1}{2}$ -in. long. Calyx-lobes about half the length of the tube, the lower deltoid, the upper much united and minutely apiculate. Corolla rather more than double as long as the calyx. Stamens—fertile inserted near the middle of the corolla, sterile placed somewhat further

down. Anthers (fertile) almost narrow-ellipsoid, disk short and blunt-lobed. Style glabrous, about half as long as the corolla. Stigma dilated, somewhat truncated; ovulary narrow-pointed, glabrous. Fruit oblique-ellipsoid, about $\frac{3}{4}$ -in. long. Seeds very numerous, narrow-ellipsoid, almost smooth, dark-brown outside.

Hab.: Russell River.—*Bellenden-Ker Expedition*. Specimens with flower.

Fruit specimens, *W. Sayer*, at about 5,000 feet altitude, Bellenden-Ker, Baron Mueller, to whom I am indebted for the above description, writes me; but as Mr. Sayer was not on Bellenden-Ker, but on a mountain called by the natives Chickaboogalla, the altitude of which is about 3,970 feet, he probably gathered his specimens near the locality where I got my flowering shoots. The shrub was not abundant and I only secured three or four specimens.—*F.M.B.*

Systematically this species could best be placed near *C. trisepala*, as that congener has also alternate leaves; but the flowers of that plant are usually placed in twos and threes, leaf-opposed; the calyces are split and the style is not glabrous.—*F. v. M., l.c.*

ALLIANCE LAMIALES.

Order MYOPORINEÆ.

PHOLIDIA, R. Br.

P. Dalyana, *F. v. M.*, Fl. Austr. v. 10. An erect shrub, hoary or almost silvery, with a close more or less scaly indumentum; branches rigid, with angles decurrent from the leaves. Leaves opposite or nearly so, about 1 in. long, narrow-linear with hooked points. Flowers solitary, nearly sessile, the corolla not much contracted at the base, and the ovary densely villous, 2-celled.

Hab.: Wilson River.

EREMOPHILA, R. Br.

E. Freelingii, *F. v. M.*, Proc. Roy. Soc. Tasm. iii. 295; Fl. Austr. v. 25. An erect shrub, more or less hoary-tomentose and glutinous, or the foliage at length glabrous. Leaves crowded, lanceolate, acute, entire, contracted into a rather long petiole, $\frac{3}{4}$ to $1\frac{1}{2}$ in. long. Peduncles solitary, mostly 2 or 3 lines long. Calyx-segments much imbricate, ovate or lanceolate, rather acute, or acuminate, not dilated upwards, the outermost usually much broader and larger than the inner ones. Corolla above 1 in. long, pubescent outside, the tube contracted above the ovary, then enlarged, the 4 upper lobes rather broad and acute, the 2 uppermost more united than the others, the middle lower lobe broader and obtuse. Stamens included. Ovary ovoid, with 2 or 3 pairs of ovules in each cell, suspended from short, broad, flat, erect, superposed funicles. Drupe with a 4-celled putamen.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 4th Suppl. to Syst. Cens. Austr. Pl.

E. Willsii, *F. v. M.*, Fragm. iii. 21, t. 20; Fl. Austr. v. 26. Branches and foliage more or less covered with a glandular rust-coloured pubescence and somewhat glutinous. Leaves obovate-oblong, obtuse or almost acute, entire or serrulate, contracted at the base

but not petiolate, about 1 in. long. Pedicels solitary, hispid, short. Calyx-segments much imbricate, $\frac{1}{2}$ to $\frac{3}{4}$ in. long, and enlarging after flowering, the outermost almost ovate, the innermost narrow, all acute. Corolla glabrous, or slightly pubescent outside, "blue," the lobes all broad, obtuse or very shortly acute, the middle lower one rather broader than the others. Stamens included. Ovary narrow, densely tomentose, with 2 pairs of ovules in each cell.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 174.

Order LABIATÆ.

TRIBE MONARDEÆ.

MONARDA, Linn.

(After Nic. Monárda or Monárdes, a physician of Seville in the sixteenth century.)

Calyx tubular, elongated, 15-nerved, nearly equal 5-toothed; throat villous inside, rarely almost naked. Corolla with an exserted or inclosed tube, glabrous or pubescent inside, exannulate; throat dilated a little; limb 2-lipped, lips linear or oblong, nearly equal; upper lip erect, entire or emarginate; lower lip spreading, shortly trifid at the apex, the lateral lobes ovate, obtuse; the middle one narrower, oblong, retuse or emarginate. Stamens 2 (inferior), ascending, usually exserted from the upper lip of the corolla; the rudiments of the two superior ones almost wanting; filaments toothless, inserted at the throat of the corolla; anthers linear, somewhat 2-celled; cells divaricate, confluent, with connate margins. Style almost equally bifid at top; stigmas minute, terminal. Nuts dry, smooth. Herbs, with entire usually toothed or crenated leaves. Flowers collected into dense whorls, supported by bracts, which are often coloured.

M. aristata, *Benth.*, Lab. 318. An erect branching herb slightly hoary, and all parts hairy. Leaves lanceolate, tapering much towards the base, 2 or 3 in. long, serrate. Flowers in dense whorls, white; bracts ciliate, sessile, usually of a purple colour, ending in long awns. Calyx-tube striate, much bearded at the throat; lobes long, subulate. Corolla white, spotted with purple; tube about as long as the calyx-lobes. Stamens shorter than the upper lip.

Hab. : Harrisville, from whence it was received from Rev. J. Coles, as a plant becoming naturalised in that locality. It is a native of Arkansas, Texas, and other parts of America, from whence it has been introduced in garden seeds.

TRIBE PROSTANTHEREÆ.

PROSTANTHERA, R. Br.

P. Leichhardtii, *Benth.*, Fl. Austr. v. 106. A bushy shrub, the branches slightly pubescent, the foliage glabrous or nearly so. Leaves distinctly petiolate, oblong or obovate-oblong, obtuse, entire, rather thick, flat, rarely exceeding $\frac{1}{2}$ -in. Flowers apparently all axillary, on very short pedicels, probably without bracts. Calyx about 3 lines

long when in flower, somewhat enlarged afterwards, the tube broad, scarcely striate, the lips equal, entire, scarcely half as long as the tube. Corolla slightly hairy outside, the tube shortly exceeding the calyx and scarcely dilated, the upper lip 4 or 5 lines long, concave, emarginate, the lobes of the lower lip much shorter, all fringed with long hairs. Stamens nearly as long as the upper lip of the corolla; anthers without any prominent appendages to the connective.—Fl. Austr., l.c.

Hab.: Bottle-tree Creek, Leichhardt.—*Benth.*, l.c.

WESTRINGIA, Sm.

W. rosmariniformis, *Sm.*, Tracts. 282, t. 3; Fl. Austr. v. 128. A robust bushy shrub of several feet, the branches, under side of the leaves, and calyxes hoary or silvery white with densely appressed hairs. Leaves in whorls of 4, oblong-lanceolate, lanceolate, or linear, acute or obtuse, $\frac{1}{2}$ to 1 in. long, coriaceous, glabrous and shining on the upper side, the margins more or less recurved or revolute. Flowers almost sessile, all axillary, with short linear bracts. Calyx about 3 lines long, the teeth acute, varying from half the length to nearly the length of the tube. Corolla pubescent outside, not twice as long as the calyx, the upper lip deeply 2-lobed, equal to or longer than the tube, the lower lip scarcely so long. Anthers of the staminodia with 2 linear, clavate, parallel lobes. Nuts glabrous, reticulate-rugose.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 171.

SUBCLASS MONOCHLAMYDEÆ.—SERIES CURVEMBRYEÆ.

Order AMARANTACEÆ.

TRIBE AMARANTEÆ.

AMARANTUS, Linn.

A. pallidiflorus, *F. v. M.*, Fragm. i. 140; Fl. Austr. v. 214. An erect or decumbent annual of 1 or 2 ft. Leaves on long petioles, ovate, obtuse, 1 to 3 in. long, rather thin and of a pale green. Lower cymes or clusters of flowers axillary, the upper ones in dense spikes forming a terminal panicle of $\frac{1}{2}$ -ft. or more, the central spike very long, the lateral ones short. Bracts and bracteoles scarious, lanceolate or ovate-lanceolate, very acute, about as long as the claws of the perianth-segment or rarely as long as the whole perianth. Perianth-segments 5, lanceolate at the time of flowering, those of the females when in fruit with broad erect claws of about $\frac{1}{3}$ -line, and expanded into broadly ovate, mucronate-acute, spreading, and scarious laminæ, rather longer than the claws. Pericarp very rugose, membranous, circumscribed, with a thick apex and 3 fine styles.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 49.

CYATHULA, Lour.

Sepals 5, scarious, 1-nerved, acuminate or with hooked rigid awns. Stamens 5, connate, united below with the linear lacerate or 2-fid

staminodes into a cup (whence the name); anthers 2-celled. Ovary obovoid; style filiform, stigma capitellate; ovule 1, pendulous from a long basal funicle. Utricle ovoid, indehiscent, top areolate. Seeds inverse, oblong, testa coriaceous; embryo annular, cotyledons linear, flat. Herbs or undershrubs. Leaves opposite. Flowers clustered, clusters solitary, spicate and reflexed in fruit, or in dense, globose, solitary or spicate heads; perfect flowers 1 or 2 in each cluster, surrounded by imperfect ones reduced to sepals, with rigid hooked awns. —*Hook.* in *Ind. Flora.*

C. prostrata, *Blume*, *Bijd.* 549; *Fl. Brit. Ind.* iv. 723. Stems ascending from straggling almost prostrate branches usually slender and from 6 in. to 2 ft. high, clothed as well as the foliage with close, white, silky hairs. Leaves petiolate or nearly sessile, elliptic, rhomboid-oblong, or the lower ones subpanduriform and obtuse, 1 to 2 in. long. Spikes very slender, terminal, 4 to 6 in. long, sometimes branched, silky-pubescent. Sepals oblong or somewhat lanceolate. Staminodes 2-fid or retuse. Seeds ovoid-oblong.

Hab.: Scrubs of the Mulgrave River. I was in some doubts of this plant, so referred it to Baron Mueller, who considers it the above Indian weed.

TRIBE GOMPHRENEÆ.

GOMPHRENA, Linn.

G. conferta, *Benth.*, *Fl. Austr.* v. 257. Erect, hard, stout, and probably tall, but apparently annual, the specimens very imperfect, the branches bearing a few white woolly hairs and linear or linear-lanceolate leaves of 1 to 2 in. Spikes ovoid or cylindrical, 3 or 4 lines diameter and some of them above $\frac{1}{2}$ -in. long, sessile and crowded on very short axillary branchlets, and surrounded by broadly lanceolate, herbaceous, softly villous, floral leaves about as long as the spikes. Bracteoles very broad and obtuse, rather longer than the perianth; bracts shorter and more acute. Perianth-segments scarcely $1\frac{1}{2}$ line long, woolly outside to above the middle, the glabrous white tips very obtuse in the outer ones, less so and narrower in the inner. Staminal tube short; filaments dilated at the base, acuminate, without intervening teeth or lobes. Style short.

Hab.: Cape Flinders.—*A. Cunn.* in *Fl. Austr.* 257.

Order CHENOPODIACEÆ.

SUBORDER CHENOPODIEÆ.—SERIES CYCLOLOBEÆ.

TRIBE EUCHENOPODIEÆ.

RHAGODIA, R. Br.

R. crassifolia, *R. Br.*, *Prod.*; *Fl. Austr.* v. 154. A dwarf or diffuse much-branched scrubby shrub, or the branches somewhat elongated in narrow-leaved forms, nearly green or more or less hoary-tomentose. Leaves mostly alternate, linear or scarcely oblong in the

typical form, rarely cuneate or almost obovate in some varieties, obtuse, contracted into a short petiole, rather thick, flat or concave, rarely $\frac{1}{2}$ -in. long. Flowers and fruits small, clustered or rarely solitary, in short terminal, nearly simple, interrupted spikes or slightly branched panicles. Fruiting perianth not exceeding the fruit.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 50.

CHENOPODIUM, Linn.

C. cristatum, *F. v. M.*, Fragm. vii. 11; Fl. Austr. v. 163. Diffuse or procumbent, with ascending flowering branches of 1 ft. or more, the whole plant slightly glandular-pubescent. Leaves on long petioles, from ovate to oblong-lanceolate, obtuse, coarsely toothed, narrowed at the base, $\frac{1}{2}$ to 1 in. long, green and glandular-scabrous on both sides. Flowers in dense globular clusters, all axillary. Perianth-segments linear, erect, not incurved, acute, about 1 line long when in fruit, the keel dilated into a broad fringed crest or wing. Fruit ovoid, erect, enclosed in the perianth. Styles very slender.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 50.

TRIBE ATRIPLICEÆ.

ATRIPLEX, Linn.

SERIES PANICULATE.

A. stipitata, *Benth.*, Fl. Austr. v. 168. An erect, bushy, rather slender shrub, scaly white or somewhat fulvous all over. Leaves from obovate to narrow-oblong, very obtuse, entire, contracted into a short petiole, mostly rather thick, $\frac{1}{2}$ to $\frac{3}{4}$ in. long. Flowers diœcious, the males numerous in little globular clusters scarcely 2 lines diameter, all distinct and somewhat distant, in slightly branched terminal panicles or almost simple spikes; females in smaller clusters, the lower ones often solitary in the axils, the upper ones in a somewhat leafy spike or panicle, some of them sessile, ovoid or globular, shortly 2-lobed, enclosing an apparently perfect ovary, but soon falling off, the greater number more or less stipitate at a very early age with broad flat valves. Fruiting perianth on a slender stipes of 2 or 4 lines, with a small campanulate tube half enclosing the fruit; valves flat, reniform, entire, 4 or 5 lines broad. Seed orbicular, flat, the radicle superior.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 50.

A. Quinil, *F. v. M.*, Vict. Nat. v. 96. (After Edward Quin, of Tarella, Riverina.) Plant slightly shrubby, comparatively dwarf, grey from minute appressed scales. Leaves from rhomboid to linear-lanceolate, almost or quite entire. Male flowers mostly in clusters at the ends of the branchlets; female flowers mostly lower down, few or 2 together or some singly scattered, their stalks finally conspicuous, hemi-ellipsoid-cylindric; the two segments of the involucre renate or

somewhat verging into a rhomboid form, entire or distantly toothed, upwards rather membranous, at their base bearing a small but prominent and quite renate appendage. Fruit at the base of the involucre segments close to the stalk. Radicle ascending.—*F. v. M., l.c.*

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 50.

SERIES GLOMERATÆ.

A. angulata, *Benth.*, Fl. Austr. v. 174. Plant mealy or almost scaly-tomentose. Leaves on long petioles which are winged below the lamina, orbicular or broadly rhomboid, very obtuse, angular or sinuate, $\frac{1}{2}$ to $1\frac{1}{2}$ in. diameter. Flowers monœcious, the male clusters in the upper axils accompanied by a few females, or 2 or 3 forming a short terminal spike, the lower axillary clusters small and all female. Fruiting perianth raised on a stipes of about 1 line, with a turbinate compressed tube of a little more than 1 line, and large green toothed valves 3 lines broad or more. Fruit enclosed in the tube, but raised on a short solid base. Radicle superior.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 50.

TRIBE CHENOLEEÆ.

KOCHIA, Schrad.

K. triptera, *Benth.*, Fl. Austr. v. 185. A low, stout, diffuse or spreading shrub or undershrub, the foliage and often the branches also quite glabrous and somewhat glaucous. Leaves rather crowded, linear, semi-terete, often acute, rather thick, $\frac{1}{2}$ to above $\frac{1}{2}$ in. long. Flowers solitary in the axils. Fruiting perianth with a broadly turbinate tube, above 1 line long below the horizontal wings, with 3 or 4 very prominent vertical wings, and more than half of it occupied by a thick solid base below the fruit, the upper part of the perianth within the wings flat and closing over the fruit as in most *Kochias*, the horizontal wings united in a single rigidly membranous ring expanding to 4 or 5 lines or even $\frac{1}{2}$ -in. diameter and quite concealing the vertical wings. Styles usually 3.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 51.

K. sponglocarpa, *F. v. M.*, Vict. Nat. iii. 92. Plant erect, branches whitish velvet-downy. Leaves $\frac{1}{2}$ to $\frac{1}{2}$ in. long, semi-cylindrical-linear, rather long, somewhat pointed, glabrous; style enclosed; stigmas generally 2, sometimes bifid; fruit-bearing calyx nearly $\frac{1}{2}$ -in. wide, pale-brown, quite spongy, almost semi-globular, slightly wrinkled, glabrous, the flat summit expanding into a narrow undivided membrane, the transverse of it very subtle.—*F. v. M., l.c.*

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 51.

K. stelligera, *F. v. M.*, Fragm. vii. 13; Fl. Austr. v. 189. A diffuse or procumbent undershrub spreading to 1 ft. or more, with numerous, rather slender, ascending branches not above 6 in. high,

clothed as well as the young foliage with a white cottony wool, wearing off from the older leaves. Leaves alternate, sessile, narrow-linear, erect or spreading, very soft, 1 to 3 lines long. Flowers small, solitary in the axils, but often crowded in woolly tufts at the ends of the branches, the perianth nearly globular, woolly outside, with short lobes about $\frac{1}{2}$ -line long. Stamens included. Styles 2, rather long, scarcely united at the base. Fruiting perianth nearly $1\frac{1}{2}$ line diameter, of a thick hard consistence, the teeth hemispherical, quite smooth, without vertical wings, the basal hollow small, the summit very flat, bordered by a very narrow, rather rigid, horizontal wing, with 10 to 12 short, rigid, equally radiating teeth or points.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 51.

THRELKELDIA, R. Br.

T. proceriflora, *F. v. M.*, Fragm. viii. 38. A glabrous glaucous plant. Leaves 5 to 10 lines long, narrow-linear, somewhat fleshy. Flowers axillary, solitary. Calyx elongated, at length 4 or 5 lines long and scarcely a line thick, slightly contracted at the base; scales at the mouth 5, minute, obtuse.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 52.

SCLEROLENA, R. Br.

S. lanicuspis, *F. v. M.*, Fl. Austr. v. 195. A low undershrub or shrub, the stems rather stout, and not exceeding 6 in. in our specimens, densely clothed with a loose cottony wool, more silky and appressed on the leaves. Leaves rather crowded, linear, thick and soft, often above $\frac{1}{2}$ -in. long. Fruiting perianth similar to *S. diacantha* but rather larger, $1\frac{1}{2}$ to 2 lines long, and very densely clothed with long silky or woolly hairs, the 2 dorsal opposite spines divergent, nearly equal, 1 to 2 lines long.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 51.

ANISACANTHA, R. Br.

A. bicuspis, *F. v. M.* in Trans. Vict. Inst.; Fl. Austr. v. 200. A rigid, stout, but compactly branched shrub or undershrub, the specimens seen not above 6 in. high and quite glabrous. Leaves linear, semiterete, acute, from $\frac{1}{4}$ -in. to above $\frac{1}{2}$ -in. long. Flowers closely sessile and semi-adnate. Fruiting perianth 2 or 3 lines long, the tube ovoid, very hard, with 3 diverging spines, of which 2 (either equal or unequal) varying from $\frac{1}{4}$ to 1 in. long, the third small, sometimes reduced to a tubercle, sometimes 1 line long; perianth-lobes membranous, obtuse, erect or inflexed. Styles 2, united to above the middle into a hard column. Pericarp usually hardened. Seed obliquely erect with a superior radicle.—Fl. Austr., l.c.

Hab.: Cooper's Creek.

SERIES MICREMBRYEÆ.

Order PIPERACEÆ.

TRIBE PIPEREÆ.

PIPER, Linn.

P. (Chavica) Mestoni (n. sp.) Queensland Long Pepper. A large climber adhering to the stems of trees by adventitious roots. Leaves broadly ovate-acuminate, rounded at the base, and nearly or quite equal-sided, 6 to 8 in. long, 4 to 5 in. broad, on petioles of about $\frac{1}{2}$ -in., septuplinerved. Spikes unisexual, leaf-opposed; males not seen; female or fruiting spikes of a brownish colour, formed by the firmly united fruits, nearly 2 in. long and 5 lines diameter at the base, terete, tapering towards the end. Peduncles about $\frac{1}{4}$ -in. long. Styles rather prominent, 2-lipped.

Hab.: Harvey's Creek, Russell River.

This new species is nearly allied to *P. Chaba*, Hunter, Fl. Brit. Ind. v. 83 (the *Chavica peepuloides*, Miq., of Wight Ic. t. 1927).

It is worthy of remark that the present plant is nearly allied to the Long Pepper of commerce.

SERIES DAPHNALES.

Order LAURINEÆ.

TRIBE PERSEACEÆ.

ENDIANDRA, R. Br.

E. Muelleri, *Meissn.* in DC. Prod. xv. i. 500; Fl. Austr. v. 302. A tree of medium size, glabrous except a minute ferruginous tomentum on the inflorescence and sometimes on the young shoots. Leaves ovate-elliptical or broadly oblong, acuminate, cuneate at the base, green on both sides, the primary veins more prominent and the reticulations less so than in *E. Sieberi*, mostly 3 to 5 in. long. Panicles axillary, loose, much shorter than the leaves. Pedicels longer than the flowers. Perianth-tube thick and fleshy, broadly turbinate, $1\frac{1}{2}$ line diameter, the lobes small and connivent. Stamens 3, with broad flattened glands; staminodia of the outer series deficient, of the inner series small or obsolete.—Fl. Austr., l.c.

Hab.: Logan River.—*Rev. B. Scortechini.*

Order PROTEACEÆ.

SUBORDER NUCAMENTACEÆ.—TRIBE PROTEEÆ.

ISOPOGON, R. Br.

I. anemonifolius, *Knight*, Prot. 93; Fl. Austr. v. 347. A shrub 4 to 6 ft. high, glabrous except the cones or the branches, any young shoots pubescent. Leaves on rather long petioles, once or twice

trifid or pinnately divided, with linear or linear-cuneate entire or 2 or 3-lobed segments, usually diverging or falcate, mostly pungent-pointed, rather rigid and obscurely veined, the whole leaf 2 to 4 in. long and nearly as broad. Cones sessile, solitary or in clusters of 2 or 3 at the ends of the branches, nearly globular, $\frac{1}{2}$ to $\frac{3}{4}$ in. diameter. Outer bracts numerous, but mostly small and narrow. Cone-scales very numerous, woolly outside, the expanded, truncate, imbricate ends becoming glabrous with very minute points. Perianth yellow, 5 to 6 lines, glabrous except the terminal tufts of short hairs. Style-end clavate, minutely papillose, pubescent, separated by a short constriction from the bulbous base of the nearly glabrous brush. Receptacle oblong or cylindrical.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 113.

TRIBE PERSOONIÆ.

PERSOONIA, Sm.

SECTION AMBLYANTHERA.

P. fastigiata, *R. Br.*, Prot. Nov. 13; Fl. Austr. v. 393. A slender-branched slightly pubescent shrub; the leaves rather crowded, incurved, narrow-linear, scarcely acute, attenuate at the base, the margins recurved or revolute, $\frac{3}{4}$ to $1\frac{1}{2}$ in. long, more or less scabrous-pubescent. Pedicels slender, solitary or clustered in the axils (the floral leaves abortive) 1 to 2 lines long. Perianth minutely pubescent or hirsute, 3 to $3\frac{1}{2}$ lines long. Anther-connective not produced beyond the cells. Ovary densely hirsute, on a glabrous stipes; style elongated; ovules 2.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 115.

P. lanceolata, *Andr.*, Bot. Rep. t. 74; Fl. Austr. v. 395. An erect shrub of several feet, the branches and young shoots hoary-pubescent, the adult foliage glabrous or nearly so. Leaves lanceolate or oblong-lanceolate, mucronate-acute, much contracted into a short petiole, mostly $1\frac{1}{2}$ to 2 in. long, flat, the midrib slightly prominent, the margins scarcely nerve-like, otherwise veinless. Pedicels exceedingly short, solitary or 2 together, pubescent, rarely 1 line long. Perianth about 5 lines long, pubescent with very short appressed hairs, the segments without terminal points. Anther-connective not produced beyond the cells. Ovary glabrous, contracted into a short stipes; style elongated; ovules 2.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 115.

CYANOCARPUS (n. gen.)

(So named from its bright-blue fruits.)

Flowers hermaphrodite. Perianth regular, in a straight tube before expansion; segments valvate, recurved when expanded. Anthers on short filaments. Hypogynous glands 4, distinct, orbicular-ovate, equal. Ovary sessile, with long straight style; stigma terminal, clavate. Fruit a drupe with succulent juicy exocarp and cartilaginous

endocarp, 1-seeded. A slender evergreen tree with alternate serrated leaves. Flowers in axillary racemes, pedicels connate in pairs. Fruit a juicy bright-blue drupe.

C. Nortoniana (n. sp.) (After the Hon. A. Norton, who has always taken a deep interest in Australian botany.) A small tree, the branches when young clothed with dark-reddish short hairs. Leaves alternate, broadly lanceolate or ovate-lanceolate, 4 to 7 in. long, 1 to 3 in. broad, irregularly but sharply serrate, the apex more or less elongated; petioles short, which with the primary veins are clothed with rusty hairs like the branchlets; texture membranous, upper surface glossy; primary veins prominent, joining some distance within the margin. Racemes axillary, 2 to 4 in. long, ferruginous. Flowers in pairs, the pedicels short, connate, straight and slender in the bud, about 3 lines long, the segments closely revolute when expanded, glabrous inside. Filaments equal in length with the anther, incurved. Style erect, glabrous. Stigma clavate. Ovary sessile, very hairy. Fruit a bright-blue oval juicy drupe, about $\frac{1}{2}$ -in. long, more or less hairy, and bearing the persistent, slender, straight style.

Hab.: Tringilburra Creek and creeks off Russell River.

A lovely tree when in full fruit; wood red, with the peculiar grain of the order.

SUBORDER FOLLICULARES.—TRIBE GREVILLEÆ.

HELICIA, Lour.

H. Whelani (n. sp.) (After Sergeant E. J. Whelan). A glabrous tree of medium size. Trunk erect, bark smoothish, not thick, seldom more than $\frac{1}{2}$ -in. on old trees; the branches opposite or whorled, reddish when young; wood with the usual grain of the order and deep-red. Leaves opposite or more frequently at the ends of the branches in whorls of 3 to 6, petiolate, lanceolate, 4 to 7 in. long, 1 to 3 in. broad, the points more or less elongated, midrib prominent; reticulations close, prominent in the dried leaf but scarcely so when fresh, margins entire. Flowers in terminal racemes of about 2 in. long, judging from the fruit specimens, but no flowers seen. Fruit indehiscent or slightly opening along the ventral suture, slightly ferruginous, globular, 2 or more inches in diameter, over $2\frac{1}{2}$ in. when containing twin nuts; putamen globular when solitary, hemispherical when 2 in a fruit, of a light-brown, glossy and hard; testa dark-brown and wrinkled like the kernel.

Hab.: Abundant along Tringilburra Creek, and thence to Whelian Pools.

The nuts seem to be largely used by the natives of this locality for food, as we found large quantities of the broken shells as well as the whole nuts at all their camps.

ORITES, R. Br.

O. fragrans (n. sp.) (Name referring to the fragrant flowers.) A tall shrub or small tree with dense spreading head, glabrous except the inflorescence and a slight hoariness on the young growth; the twigs or branches bearing the flowers, purplish or reddish. Leaves

alternate, ovate-obtuse, emarginate or somewhat pointed, $2\frac{1}{2}$ to $3\frac{1}{2}$ in. long, and 1 to 2 in. broad; the margins quite entire, pale on the under surface; texture thin coriaceous, on slender coloured petioles of about 1 in. Spikes numerous in the upper axils, about 2 or 3 in. long; at an early stage closely covered with broadly ovate, apiculate, prominently striated, imbricate, fugacious bracts, of a bright crimson colour. Rhachis densely ferruginous pubescent. Perianth 3 or 4 lines long, segments much recurved in the expanded flower. Filaments broad, attached to the middle of the segment; anther about as long as the filament. Ovary purple and silky, but less so than the style, which is very hairy and as long as the perianth.

Hab.: The highest peaks of Bellenden-Ker and also Bartle Frere.

A most attractive plant from the rich colour and fragrance of the inflorescence.

GREVILLEA, R. Br.

G. Kennedyana, *F. v. M.*, Proc. Roy. Soc. Vict. xxiv. 172. (After Mrs. M. B. Kennedy, of Wonnaminta.) A shrub of about 5 ft., more or less covered with short, appressed, greyish hairs. Leaves scattered or somewhat fascicled, rigid, linear, entire, pungently pointed, margins revolute, from $\frac{3}{4}$ to 1 in. long, with a single groove underneath. Flowers in sessile umbels, terminal or axillary, very numerous, bracts fugacious; pedicels glabrous, $\frac{1}{2}$ -in. long; flower-segments near 1 in. long, bright-red, reflexed in the upper half, glabrous outside, the inside beset with tender whitish hairs; torus elongated, almost in a straight line continuing the pedicel; hypogynous gland semi-annular and also upwards protracted; style glabrous, nearly half exserted; ovary stipitate, stigma lateral. Fruit oblique-ellipsoid, pointed at the upper end, slightly glandular-rough outside, $\frac{3}{4}$ -in. long. Seeds linear or narrow-ellipsoid, channelled, greyish outside, with a short pale terminal appendage.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 118.

SECTION CALOTHYRSUS.

G. refracta, *R. Br.* in Trans. Linn. Soc. x. 176; Fl. Austr. v. 458. A tall shrub or small tree, the young branches tomentose. Leaves mostly pinnate with 3 to 11 segments 2 to 5 in. long, linear-lanceolate or the terminal one broader, or sometimes reduced to a single oblong-cuneate leaf, the segments acute or obtuse when broad, tapering at the base and sometimes petiolulate, the margins usually recurved, nearly glabrous above and penniveined with numerous very oblique and nearly parallel primary veins, densely silky-pubescent underneath with the midrib alone prominent. Racemes short, secund, nearly sessile, usually several together in a small sessile terminal panicle, the rhachis of each raceme rarely above 1 in. long, the pedicels 2 or 3 lines, hoary-tomentose. Perianth silky-pubescent outside, bearded inside about the middle, the tube 4 or 5 lines long, dilated towards the base, contracted upwards and much revolute under the obliquely globular limb. Torus very oblique. Gland very prominent, half cup-shaped, 2-lobed.

Ovary glabrous, stipitate on the upper margin of the torus ; style thick, not very long ; stigmatic disk lateral. Fruit very hard, nearly globular, about 1 in. diameter. Seed broadly winged.—Fl. Austr., l.c.

Hab. : Islands of the Gulf of Carpentaria.

G. r. var. ceratophylla, *Benth.*, Fl. Austr. l.c. Leaf-segments often broader and several of the leaves undivided, the primary veins more conspicuous underneath.

Hab. : Islands of the Gulf of Carpentaria.

HAKEA, Schrad.

SECTION GREVILLEOIDES.

H. chordophylla, *F. v. M.* in Hook. Kew Journ. ix. 23 ; Fl. Austr. v. 495. A glabrous more or less glaucous tree, the leaves terete, smooth, mostly from $\frac{1}{2}$ to 1 ft. long. Racemes from the old wood, loosely cylindrical, 3 to 4 in. long, quite glabrous. Pedicels about $\frac{1}{4}$ -in. long. Perianth glabrous, the tube 4 to 5 lines long, much dilated and oblique at the base, revolute under the limb. Torus very oblique. Gland large, horseshoe-shaped. Ovary stipitate ; style long ; stigmatic disk broad, oblique, not convex. Fruit obliquely lanceolate, about $1\frac{1}{2}$ in. long and $\frac{1}{2}$ -in. broad near the base, tapering into a short slightly incurved beak. Seed-wing not decurrent along the nucleus.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 120.

H. macrocarpa, *A. Cunn.* in R. Br. Prot. Nov. 30 ; Fl. Austr. v. 496. A tree of about 15 to 20 ft. with a rugged bark. Leaves linear-lanceolate, 6 to 8 in. long, 2 to 5 lines broad, mostly obtuse, tapering at the base, thick, minutely silky-pubescent on both sides, the veins longitudinal, slightly anastomosing, scarcely prominent. Racemes loosely cylindrical, 3 to 6 in. long, tomentose-pubescent. Pedicels 2 to 5 lines long. Perianth-tube about 5 lines long, oblique, dilated below the middle, revolute upwards. Torus oblique. Gland large, semi-circular. Ovary shortly stipitate, style rather thick, not long ; stigmatic disk oblique, broadly conical. Fruit ovate-lanceolate, $1\frac{1}{2}$ to $1\frac{3}{4}$ in. long, 7 to 8 lines broad.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 120.

H. vittata, *R. Br.* in Trans. Linn. Soc. x. 182 ; Fl. Austr. v. 507. Young shoots minutely ferruginous or hoary, the adult foliage glabrous. Leaves terete, slender, rigid, finely almost pungent-pointed, not attenuated at the base, $1\frac{1}{2}$ to 3 in. long. Flowers not seen, except some loose remains which appear to have been like those of *H. Pampliniana*, the perianth silky-pubescent, the torus small, the style rather long with an orbicular, lateral, stigmatic disk. Fruit ovoid, nearly $\frac{1}{2}$ -in. long, fully 4 lines broad, spotted or slightly verrucose, scarcely beaked, marked with a broad, smooth, dark line down each suture, the valves with a short dorsal horn near the end. Seed-wing decurrent along the upper margin only of the nucleus.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 120.

MUSGRAVEA, F. v. M. (g.n.)

(After Sir Anthony Musgrave, G.C.M.G., the late Governor of Queensland.)

Flowers small, in spike-like racemes, nearly straight before expansion. Petals separately seceding. Stamens inserted near the summit of the petals. Free portion of filaments very short. Anthers apiculate. Hypogynous scalelets usually 3, somewhat distant from each other, upwards gradually pointed. Style capillary. Stigma terminal, conical-ovate; ovulary sessile; ovules 2, laterally attached, their base free. Fruit comparatively large, dimidiate-orbicularly ellipsoid; pericarp hard, anteriorly dehiscent.

M. stenostachya, F. v. M. (n. sp.), Linn. Soc. of N.S.W. March 26, 1890. A tree known to attain 50 ft. in height, and perhaps getting even higher. Leaves of very firm consistence, scattered or crowded, on stalks of moderate length or short-stalked, from 2 to 4 in. long, obovate-elliptical, entire, above glabrous, beneath greyish or brownish from a very thin vestiture; primary-lateral venules pennular-spreading; ultimate venules closely reticular-joined, rather prominent beneath. Racemes very slender, many-flowered, from 2 to 8 in. long, forming terminal panicles. Flowers about $\frac{1}{4}$ -in. long, in pairs on very short stalks, but unprovided with stalklets; each pair from the summit of the stalk supported by 3 long persistent very short bracts. Petals outside beset with appressed greyish hairlets. Style about $\frac{1}{4}$ -in. long, glabrous towards the summit. Stigma minute. Ovulary bearing a brownish close vestiture. Fruit (sent separately) much attenuated into the base, about 2 in. long; pericarp thick, almost lignescent and at last flatly expanding. Seeds unknown.

Hab.: On Mount Bellenden-Ker, *W. Sayer*; on the Johnstone River, *Dr. Th. L. Bancroft*.

This new genus differs from *Darlingia* in bracts, number of hypogynous scalelets and ovules, also possibly in the structure of its seeds. Should, however, normally four ovules be occurring, a question which could not be finally ascertained from the material hitherto extant, and should the seeds not be very different from those of *Darlingia spectatissima*, then our new plant would constitute a second species of that genus. But the pericarp is more like that of *Cardwellia*, while the flowers are almost those of *Helicia*, seemingly also as regards ovules. The leaves are almost undistinguishable from those of *Orites fragrans*.—*F. v. M., l.c.*

TRIBE EMBROTHRIÆ.**LOMATIA, R. Br.**

L. ilicifolia, R. Br. in Trans. Linn. Soc. x. 200; Fl. Austr. v. 536. An erect branching shrub of several feet, growing out sometimes into a small tree, quite glabrous or the young shoots and inflorescence more or less ferruginous-pubescent. Leaves petiolate, ovate, oblong, or lanceolate, irregularly prickly toothed or lobed, varying from 2 to 3 in. in some specimens to twice that size in others, glabrous above and more or less reticulate, closely and shortly silky-pubescent underneath; the upper leaves often small and distant, and on barren shoots the leaves sometimes pinnate, with numerous small, sessile or decurrent,

lanceolate, toothed segments. Racemes long and loose, simple or slightly branched. Pedicels $\frac{1}{4}$ to $\frac{1}{2}$ in. long. Perianth glabrous or pubescent with small appressed hairs, the tube 3 to $3\frac{1}{2}$ lines long. Fruit 1 to $1\frac{1}{2}$ in. long.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 122.

SERIES ACHLAMYDOSPOREÆ.

Order LORANTHACEÆ.

LORANTHUS, Linn.

L. odontocalyx, *F. v. M.*, Fl. Austr. iii. 391. Glabrous except the inflorescence, or slightly hoary-tomentose. Leaves mostly alternate, oblong-cuneate-oblong, or lanceolate, obtuse, narrowed into a short petiole, under 3 in. long, thick and scarcely veined. Cymes axillary, sessile or very shortly pedunculate, usually 3 to 7-flowered, the short branches and pedicels hoary-tomentose as well as the buds. Calyx tomentose; the limb more prominent than in the allied species, nearly as long as the adnate tube, 5-toothed. Petals 5, not quite 1 in. long, united to above the middle. Anthers adnate, linear. Young fruit crowned by a long neck formed by the calyx-limb.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 111.

Order SANTALACEÆ.

TRIBE OSYRIDEÆ.

LEPTOMERIA, R. Br.

SECTION XEROMERIA.

L. Billardieri, *R. Br.*, Prod.; Fl. Austr. vi. 222. An erect broom-like shrub, attaining sometimes 6 or 7 ft., though sometimes under 2 ft., the branches rather slender and angular, but not so much so as in *L. acida*; leafless at the time of flowering, the minute, linear-lanceolate, scale-like leaves falling off early from the young shoots. Spikes or racemes lateral, loose, $\frac{1}{4}$ to $\frac{1}{2}$ in. long. Bracts ovate-lanceolate, acute, concave, falling off long before the flowering. Perianth-tube tapering into a distinct pedicel, the limb whitish when dry, spreading to about 1 line diameter. Epigynous disk distinctly lobed. Stigma minutely 5-lobed. Drupe small, with a fleshy scarcely succulent epicarp.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 110.

SERIES UNISEXUALES.

Order EUPHORBIACEÆ.

TRIBE EUPHORBIEÆ.

EUPHORBIA, Linn.

SECTION ANISOPHYLLUM.

E. schizolepis, *F. v. M.*; *Boiss.* in DC. Prod. xv. ii. 20; Fl. Austr. vi. 47. An annual, but with hard often woody-looking stems

of about 1 ft. high, dichotomously branched and more or less pubescent with crisped hairs. Leaves opposite, almost sessile, ovate or ovate-oblong, acute, oblique and unequally cordate at the base, $\frac{1}{3}$ to 1 in. long, sprinkled on both sides with short hairs. Flower-heads shortly pedicellate in the upper axils, forming sometimes terminal leafy cymes. Involucre about $1\frac{1}{2}$ line long, the glands peltate with a broad, spreading, palmately lobed or fringed appendage, not so white as in most species. Capsule and seed not seen.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 31.

E. s. var. glabra, *Benth.* in Fl. Austr. vi. 47. Plant perfectly glabrous, with the gland-appendages much less lobed.

Hab.: Gulf of Carpentaria.

TRIBE STENOLOBEÆ.

PSEUDANTHUS, Sieb.

P. ovalifolius, *F. v. M.* in Trans. Phil. Inst. Vict. ii. 66; Fl. Austr. vi. 59. A densely branched, rigid, low, spreading shrub, quite glabrous or with a slight scabrous pubescence on the angles of the branches and midrib of the leaves. Leaves scattered, occasionally opposite but mostly alternate, on exceedingly short petioles, mostly ovate but varying from orbicular and 1 line diameter to oblong and 2 lines long, very obtuse, rigid, concave or complicate and often recurved at the end. Male flowers very shortly pedicellate in the upper axils; perianth white, the segments not very unequal, about 1 line long. Stamens 6 round a minute rudiment of the ovary, the 3 inner ones nearly as long as the perianth, the outer ones short and one sometimes very short. Female flowers sessile, the perianth-segments about $\frac{1}{2}$ -line long, red with white margins. Ovary narrow. Fruit not seen.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 32.

TRIBE PHYLLANTHÆ.

PHYLLANTHUS, Linn.

P. trachyspermus, *F. v. M.* in Trans. Phil. Soc. Vict. i. 14; Fl. Austr. vi. 108. A glabrous glaucous annual, with ascending branching stems about 6 in. high or perhaps more. Leaves almost sessile, broadly oblong, obtuse, $\frac{1}{4}$ to $\frac{1}{2}$ in. long. Stipules spreading but minute. Flowers monœcious. Male not seen. Female solitary in the axils, on very short pedicels. Perianth segments ovate, spreading, about $\frac{1}{2}$ -line long. Styles 3, very short, spreading, broad and emarginate at the end. Capsule from the remains seen appears to have been ovoid-globular, about 3 lines long.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 35.

P. buxifolius, *Rein.* in Blume Cat. Plants Buitenz. 106; *F. v. M.* in 2nd Syst. Cens. Austr. Pl.*

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 35.

* Description not to hand.

OMPHALEA, Linn.

(Name referring to the umbilicate authors.)

Flowers monœcious, apetalous. Disk obscure, or none. Flowers (male): Segments 4 or 5, much imbricate; stamens 2 or 3; filaments connate in a short column, hemispherical or disciform incised at the margin, bearing 2-locular small anthers; cells vertical, extrorsely rimose; ovary rudimentary or none. Flowers (female): Segments of the males; ovary 2 to 3-locular, cells 1-ovulate; style columnar, obtuse or very shortly 2 or 3-lobed. Fruit thick, 2 or 3-dymus, epicarp fleshy, endocarp hard, indehiscent, or at length bursting into 2-valved cocci. Seed subglobose, estrophiolate, with a thick fleshy albumen; cotyledons broad, plain. Tall climbing shrubs, rarely trees. Leaves alternate, bearing 2 glands at the top of the petiole, often large, entire, penni-veined, and with 3 or 5 nerves starting from the base. Flowers cymulose in simple or ramified racemes, the central female; bracts often linear-spathulate, 2-glandular.

O. queenslandiæ (n. sp.) A rampant climbing plant, extending 100 or more feet; stems terete, or with more or less prominent decurrent lines from the base of the petioles; central pith abundant. Leaves alternate, broadly ovate or oblong, obtusely acuminate, broad almost truncate at the base, entire, 5 to 6 in. long, 3 to 4 in. broad at the base or sometimes twice that size, glabrous and deep-green; petioles 1 to 2 in. long with 2 sessile rather large glands at the top; nerves 5 to 7 on each side of the midrib, the lowest pair starting from the top of the petiole, the smaller reticulations fine, but prominent in the dried leaf. Inflorescence slightly ferruginously pubescent, in pedunculate cymes in the upper axils of lateral shoots, somewhat trichotomously branched, about 2 in. long and broad. No male flowers found in the inflorescence examined. Female perianth of 5 imbricate hairy lobes, $1\frac{1}{2}$ line long, the flowers very variable as to size and length of pedicels, some quite sessile; style very short with 3 spreading stigmatic branches. Fruit large, globular, yellow or nearly white, 3 to 5 in. diameter, 2 to 3 or in some 4-celled; exocarp thick, fleshy, ultimately separating into as many cocci, with a thin hard endocarp containing a solitary globular seed. The flowers may probably sometimes have 4 stigmatic lobes.

Hab.: Johnstone River, Harvey's Creek.

The specimens from which the above description was written were received some years ago from Dr. Thos. L. Bancroft, when that gentleman was on the Johnstone River, and the nuts were described by him as edible. At the time I felt diffident about publishing the plant as new, so placed it in the herbarium, marked "*Near Omphalea*," this American genus seeming its nearest ally. While on the Bellenden-Ker expedition I frequently noticed the plant and saw fruit on the ground, but could obtain no flowers. However, I have ventured to name it as a new species of *Omphalea*, although no male flowers are yet to hand. I notice also, in a late issue of the *Townsville Bulletin*, that some nuts collected by Mr. Christie Palmerston were sent to the Royal Gardens, Kew, and the authorities there considered one of these nuts to belong to some species of *Omphalea*, probably the same plant here

described. I did not obtain the native name; but the name there given is "Coorwah." Plants for years have been growing at Bowen Park which were raised from Johnstone River seeds.

A species, *O. oleifera*, Hemsley, at Salvador, Sonsonate, is called by the natives "Tambor," and Dr. Dorat says that it yields a large quantity of a very fine oil, pleasant to the taste, and resembling castor oil in its purgative qualities, with the advantage that its action is painless. Bio. Cent.—Ame. (Botany) iii. 134.

Dr. Lindley, Veg. King. p. 279, says that the juice of a Guayana species, *O. triandra*, turns black in drying, and is there used in the place of ink. I notice that the coagulated sap of our native plant often forms small black lumps on the branches.

Order URTICACEÆ.

Tribe ARTOCARPEÆ.

FICUS, Linn.

F. infectoria, Roxb., Fl. Ind. iii. 550; Fl. Brit. Ind. v. 515. A low deciduous tree, all parts glabrous. Leaves membranous, $3\frac{1}{2}$ to 5 in. long, oblong-ovate or ovate, abruptly shortly acuminate, margins entire subundulate, base usually rounded and emarginate or subcordate, sometimes narrowed or acute, indistinctly jointed with the petiole, 3-nerved or of 5 to 7 pairs; petioles slender, $1\frac{1}{2}$ to 2 in. long. Stipules about $\frac{1}{2}$ -in. long, broadly ovate, acute, pubescent. Receptacles in axillary pairs sessile, globose, when ripe $\frac{1}{4}$ -in. diameter, whitish flushed with red and dotted; basal bracts 3, ovate-rotund, minute. Male flowers few, sessile, near the mouth of the receptacle; anther broadly ovate, filament short; sepals 4 or 5, linear. Gall and female flower: Sepals 3 or 4, like those of the male, the latter often sessile; style of female long, of gall flower short; stigma elongate.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 38.

F. subulata, Blume, Bijl. 461; Dr. Geo. King, Annals Roy. Bot. Gar. Cale. vol. i. 8, t. 6. A semi-scandent or straggling shrub, the young parts puberulous. Leaves short-petiolate, membranous, elliptic, elliptic-lanceolate, or subobovate-elliptic, sometimes slightly inequilateral; apex rather abruptly and shortly cuspidate, edges entire, waved; base acute, 3-nerved (with occasionally several subsidiary nervelets); lateral primary nerves 7 to 10 pairs rather prominent below; in the adult leaves both surfaces are glabrous, dull when dry, the lower rather pale-coloured; length of blade 4 to 5 or 10 in.; petioles about 3 in. long, stout, scaberulous; stipules conspicuously convolute, subulate, curving away from the axis, usually more than three times as long as the petiole. Receptacles axillary, short-pedunculate, sometimes almost sessile, in pairs (solitary by abortion) or in fascicles; those bearing male flowers ovoid, and with the umbilicus rather prominent; the umbilical bracts numerous; those bearing fertile female flowers globose when ripe; both forms scaberulous, absolutely verrucose, orange-red, without basal bracts, but with a few bracts scattered irregularly along the sides, about 4 or 5 lines across; peduncles short, with numerous bracteoles at their bases. Male

flowers (occurring only in the ovoid receptacles with the gall flowers): The perianth thick, fleshy, tubular, with 4 rather short teeth; stamen 1, the anther broad, pistil globular, insect-attacked. Gall flowers pedicellate, the perianth like that of the male, achene sub-globular, smooth; style short, lateral; stigma capitate. Fertile female flowers (in globular receptacles in which there are no male flowers): The perianth hairy, gamophyllous, with 4 long teeth; achene oblong; style lateral; stigma elongate.—*King, l.c.*

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 38.

F. crassipes (n. sp.) (So named from the thick stalk of fruit.) A large tree with a somewhat smooth light-coloured bark, very milky, ends of the branches very thick, marked with rings showing where the stipules were attached. Leaves alternate, very close on the ends of the branches, the internodes not being more than $\frac{1}{4}$ -in. long; petioles somewhat flattened, about 3 in. long and 3 lines broad, glabrous or slightly hoary; lamina ovate or obtuse-ovate, with or without a short blunt point, usually rounded at the base, 5 to 8 in. long, 4 to $5\frac{1}{2}$ in. broad, thick, coriaceous, and deep-green, the margins entire, the primary lateral veins parallel, except the basal pair, which starting from the top of the petiole meet the other at about $\frac{1}{4}$ up the leaf where, anastomosing with them, form intramarginal ones. Stipules about 2 in. long with very fine point. Receptacles crowded at the ends of the branches, obtusely 3-angular, some showing a fourth angle, about 2 in. long and 1 in. diameter, marked with oval purple spots, the apex beaked; peduncles 3-angular, often broader than long.

Hab.: Scrubs, Harvey's Creek, Russell River.

This fine tree resembles somewhat, in its long angular fruit, *F. pleurocarpa* of the Johnstone River.

·AUSTRALINA, Gaudich.

(Name from having been discovered in Australia.)

Flowers monœcious, in the same or different axillary clusters, the males few together (1 to 5) sessile on a very short common peduncle, the females sessile or on very short pedicels. Male perianth irregularly bilabiate, the outer lip inflexed in the bud. Stamen 1, without any rudimentary pistil. Female perianth ovoid-tubular, obscurely 5-toothed. Ovary enclosed in the perianth but free, with a linear style, villous especially on one side and persistent. Nut enclosed in the persistent perianth. Diffuse or prostrate branching perennial herbs with the habit of *Parietaria*. Leaves petiolate, alternate or rarely opposite, crenate or obtusely toothed, membranous, 3-nerved. Stipule small.—Fl. Austr. vi. 188.

A. pusilla, *Gaudich.* in Freyc. Voy. Bot. 505; Fl. Austr. vi. 189. Stems filiform, creeping along or hanging from rocks, usually under 6 in. long and much branched. Leaves nearly orbicular, broadly crenate, 2 to 4 lines diameter or rarely $\frac{1}{2}$ -in. when very luxuriant. Male flowers solitary or 2 together on a common peduncle about as long

as the perianth, which is nearly 1 line long when open, with 1 large stamen within the large outer lip. Female flowers 2 to 5 together in the same or different axils, each on a very short pedicel without any common peduncle. Bracts very small and few or none. Fruiting perianth scarcely above $\frac{1}{2}$ -line long, ovate, compressed.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 39.

Order CASUARINEÆ.

CASUARINA, Linn.

C. Decaisneana, *F. v. M.*, Fragm. i. 61; Fl. Austr. vi. 201. A tree of 30 or 40 ft.; the branches terete, rigid, scarcely ribbed, the internodes about $\frac{1}{2}$ -in. long. Whorls 4-merous, the sheath-teeth somewhat paleaceous, lanceolate, fine-pointed, 1 to 2 lines long, or on the young permanent branches often 3 lines, erect and never recurved. Male spikes unknown. Cones ovoid, very shortly pedunculate, $1\frac{1}{2}$ in. long and 1 in. diameter, very woody, tomentose-villous, the thick valves not protruding beyond the broad, thick, undivided, dorsal tubercles.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 40.

Class II. MONOCOTYLEDONS.

SERIES MICROSPERMÆ.

Order HYDROCHARIDÆÆ.

TRIBE VALLISNERIÆÆ.

VALLISNERIA, Linn.

V. gracilis (n. sp.) (Plant small and slender compared with others of the genus.) Stems slender, creeping in the mud. Leaves about 7 or 8 to a plant, very narrow like fine grass, 3 to 5 in. long and about $\frac{1}{2}$ -line broad, the sheathing base short, tapering to filiform points, all submerged, no portion floating on the surface of the water. Male flowers minute; female flowers on very fine, filiform, spirally twisted stalks; perianth of 3 ovate entire segments; stigmas 3.

Hab. : Still waters, or at the edge of the running waters of the Mulgrave River.

The above is from note made on the spot, and having but a common lens I could not fully describe the flowers.

TRIBE THALASSIÆÆ.

ENHALUS, Rich.

Male flowers many, minute, enclosed in a short, compressed, subsessile, 2-leaved spathe, at length escaping and floating; segments of perianth broadly elliptic; stamens 3, anthers subsessile, oblong;

pistillode none. Female flowers much larger, solitary, sessile in a long spathe, scape spiral; outer segments oblong, imbricate; inner ones longer, linear, subvalvate, wrinkled. Staminodes none; very ovoid with 6 papillose ridges, long-beaked, almost 6-celled; styles 6, bipartite, arms slender, fimbriate; ovules few on each placenta, anatropous. Fruit ovoid, beaked, indehiscent, deliquescent, spathe persistent, placentas nearly meeting in the centre, spongy. Seeds few, large, convoid, testa mucilaginous; plumule many-leaved. A submerged marine monœcious or diœcious herb; rootstock crinite with the remains of old leaves. Leaves narrowly linear, enclosed in twos or threes in a basal sheath.—*Hook.* in *Fl. Brit. Ind.* v. 663.

E. Koenigii, *Rich.* in *Mem. Inst.*; *Fl. Brit. Ind.* v. 663. Rootstock extensively creeping in sand. Leaves 2 to 3 ft. long by $\frac{1}{2}$ to $\frac{3}{4}$ in. wide, margins thickened, tip rounded dentate. Spathes 2 in. long, strigose. Ovary with papillose margins. Fruit raised to the surface for ripening.—*Hook.*, *Fl. Brit. Ind.*, l.c.

Hab.: Given as a Queensland plant in *Muell. 2nd. Syst. Cens. Austr. Pl.* 193.

Order ORCHIDÆ.

TRIBE EPIDENDRÆ.

OBERONIA, Lindl.

O. pusilla (n. sp.) (A weak small species.) A small light-green plant, thickly studding the bark of a *Myrtus*. Leaves slightly distichous, about 4 or 5 to a plant, semi-cylindric, foveolate, fleshy, not over 1 in. long and 1 line thick. Flower-racemes slightly exceeding the leaves and bearing about 12 minute flowers, each of which is subtended by a transparent bract. Fruit white, globular, about 1 line diameter.

Hab.: Bellenden-Ker, at about 4,000 ft. above sea-level.

No fresh flowers found on the plants; only found the plants on one tree, on which they were very numerous.

DENDROBIUM, Swartz.

D. Tofftii (n. sp.) (After Alfred George Tofft.) A stout species resembling *D. undulatum*, the stems attaining to 4 or 5 ft. in height, swollen above the base, all more or less compressed, and prominently marked with purple ribs. Leaves broadly ovate and emarginate similar to those of *D. undulatum*. Racemes several, proceeding from the upper part of the stem, about 15 in. long including the rather long peduncle, which latter bears about 3 distant, obtuse, closely sheathing, scarious bracts, besides several which are crowded at the immediate base. Pedicels attaining $1\frac{1}{2}$ in. Outer segments or sepals attaining $1\frac{1}{2}$ in., nearly white, more or less recurved above the middle, obtuse, the dorsal one 4 or 5 lines broad at the base, the lateral ones broader, extending down and covering the rather pointed straight spur formed from the base of the column and labellum; inner segments or petals

about as long as the outer, obtuse, narrower, and tapering much towards the base, faintly lined with violet, and frequently but not always curled. Labellum about the same length as the other segments but much broader, the lateral lobes erect, stained with violet, and marked by violet-coloured forked veins, embracing the column, middle lobe small and scarcely separated from the others, obtuse, emarginate, or sometimes apiculate, the margins undulate; the disk with 3 strong dark violet-coloured plates with entire margins ending abruptly at the base of the middle lobe. Column of medium length, violet-stained at the base, more or less arched, with thick wings. Anthers flat, not prominent; pollen-masses coherent.

Hab.: Creek off the Johnstone River.—*A. G. Tofft*.

This new superb species approaches *D. undulatum* in habit and form of leaves. The stems, however, are much more compressed, and the flowers are very different in both form and colour. In the dark-coloured ribs of the stem it is similar to *D. Johannis*.

D. undulatum, var. Broomfieldii, *Fitzg.*, Austr. Orch. part 3, vol. 2. (After Captain Broomfield.) Only differ in colour of flowers, which are a canary-yellow, and in the more angular stem.

Hab.: North Australia.—*Capt. Broomfield*, *Fitzg.*, l.c.

BULBOPHYLLUM, Thou.

B. Toressæ (n. sp.) (After Miss Toressa Meston.) A small plant with creeping rhizome adhering close to the granite rocks by roots from the under side, extending to 2 or 3 in. in length, often forming radiating patches. The upper surface closely covered by distichous, closely sessile, ovate-lanceolate, rugose leaves, which are so concave on the upper face as to be somewhat cymbiform, 3 or 4 lines long, with a single nearly sessile flower nestling at the base. Flowers yellowish-white, subtended by a prominent scarious bract; 3 outer segments broad and about 2 lines long, the lateral ones forming a short, blunt, almost truncate spur; the inner segments white, of delicate texture, and nearly the length of the outer ones. Labellum of equal length with the other segments, 3-lobed, lateral lobes dotted with purple, very short; middle lobe blunt and thick, bright-yellow; column short and, for the size of the flower, prominently winged.

Hab.: On the shady rocks, Whelanian Pools; in flower in June and July.

B. nematopodium, *F. v. M.*, *Fragm.* viii. 30; *Fl. Austr.* vi. 287. Stipulary bract rigidly ribbed. Outer segment of flower with a purple edge, and 3 purple lines down the centre; inner segments about half the length of outer, say about $1\frac{1}{2}$ line, margin and one line down centre purple. Labellum $\frac{3}{4}$ as long as outer segments, and very velvety, with purple hairs; column length of inner segments.—*Note from pocket-book. F. M. B.*, Bellenden-Ker Report.

Hab.: On rocks, Whelanian Pools.

B. punctatum, *Fitzg.* in *Britt. Journ. Bot.* xxi. 205. Rhizome creeping, closely jointed, clothed with long hairs. Pseudobulbs conical,

less or more than 1 in. long, and a little less broad, deeply ribbed and furrowed. Leaves oblong, 3 to 6 in. long and about 1 in. broad. Scape rather slender, about $2\frac{1}{2}$ in. high, with a small sheathing acute bract at the base. Flower dull-yellow spotted with red-brown. Outer segments lanceolate, thick, about 10 lines long, 4 lines broad. Inner segments lanceolate, thick, about 8 lines long, 3 lines broad. Labellum 3 lines long, thick, channelled at the base, contracted in the centre, blunt, curved, articulate on the basal projection of the column. Column short, with 2 prominent teeth.—*R. D. Fitzg., l.c.*

Hab.: Cape York.—*R. D. Fitzg., l.c.*

CIRRHOPETALUM, Lindl.

(Said to be named by Dr. Lindley from the prevailing tawny colour of the blossoms, from the Greek *kirros*, tawny, and *petalon*, petal.)

Sepals free ringent, the lateral ones acuminate, drawn out at the base, adnate to the column, much longer than the upper one. Petals short, apiculate. Labellum entire, articulated with base of column. Column small, drawn out at the base, and furnished with 2 petaloid horns at top. Anthers 2-celled. Pollen-masses 4; 2 inner ones smaller.

C. clavigerum, *Fitzg.* in Britt. Journ. Bot. xxi. 204. Rhizome creeping in joints of about 3 or 4 lines, covered with long hairs especially round the pseudobulbs, forming dense masses. Pseudobulbs conical, from 6 to 18 lines long and from 5 to 12 lines broad, deeply ribbed and furrowed. Leaves thick, oblong, pedunculate, from 3 to 6 in. long and about $1\frac{1}{2}$ in. broad. Scape 6 to 8 in. long, slender; bracts lanceolate, herbaceous. Flowers 6 or 7 in a horizontal half-circle on pedicels of 10 lines with small acute bracts at their base. Dorsal segments acute, dull-yellow, spotted in parts with purple, about 4 lines long and broad, terminated in a clavate hair, about 4 lines long. Lateral segments ligulate, united from about a quarter of their length nearly to the ends, about $1\frac{1}{2}$ in. long, 3 lines broad, acute, yellowish. Inner segments lanceolate, ciliate, purplish. Labellum thick, ligulate, much curved, articulate on the basal projection of the column. Wings of column recurved at the anther, acute.—*R. D. Fitzg., l.c.*

Hab.: Cape York.—*R. D. Fitzg., l.c.*

TRIBE VANDEÆ.

DIPODIUM, R. Br.

D. punctatum, var. album. This is a lovely form with pure white flowers, found at Cleveland by W. R. Kefford.

TRIBE NEOTTIÆ.

PRASOPHYLLUM, R. Br.

P. australe, *R. Br.*, Prod.; Fl. Austr. vi. 337. Stems often 2 or 3 ft. high, the leaf-sheath occupying about half its length or even more, the lamina much shorter than the spike. "Flowers striped with

brown and yellowish green" in a spike of 3 to 6 in. or rather more. Ovary elongated. Sepals and petals all acutely acuminate, about 4 lines long, the dorsal sepal broad and concave, the lateral sepals united in the middle, sometimes free at the base and the points always free; petals broader than in *P. elatum*. Labellum sessile, with a broad gibbous somewhat fleshy erect base, abruptly recurved and reflexed in the middle of its length, the margins of the recurved part undulate, the inner plate very prominent, entire or minutely crenulate, scarcely reaching beyond the bend. Anther obtuse, shorter than the rostellum. Lateral appendages of the column adnate to the stigma at the base, lanceolate-falcate, obtuse, rather longer than the rostellum, dilated and sometimes thickened on the outer margin.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 183.

CORYSANTHES, R. Br.

C. pruinosa, *R. Cunn.* in N.S.W. Mag. n. i. 1833; *F. v. M.*, Key to Syst. Vict. Pl. 412. Quite dwarf; leaf green also underneath; flower of considerable size, purplish-dark except part of the outer side of the upper calyx-lobe; labellum conspicuously contracted towards the base, slightly or shortly denticular-fringed, its upper portion dilated, curved forward and streaked; fruit slender ellipsoid.—*F. v. M.*, l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 190.

ACIANTHUS, R. Br.

A. exsertus, *R. Br.*, Prod.; Fl. Austr. vi. 370. A slender delicate plant, much resembling *A. fornicatus*, but smaller. Leaf deeply cordate, ovate or orbicular and often sinuate as in that species. Flowers rather smaller, 3 to 6 in the raceme, the pedicel very short. Dorsal sepal slightly incurved, concave, but narrow and much contracted at the base, about 3 lines long including the short point; lateral sepals almost subulate; petals lanceolate, about half as long as the sepals. Labellum nearly as long as the sepals, oblong-lanceolate as in *A. fornicatus* but on a more distinct claw, the raised plates at the base rather longer and the surface of the lamina smooth or with very few papillæ in 2 rows. Column slender, not winged, about half as long as the sepals, incurved and protruding forward from the dorsal sepal. Pollen of *A. fornicatus*.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 191.

CALADENIA, R. Br.

C. latifolia, *R. Br.*, Prod.; Fl. Austr. vi. 384. Hairy, from $\frac{1}{2}$ to 1 ft. high. Leaf oblong-lanceolate, $1\frac{1}{2}$ to 4 in. long. Flowers pink or rarely white, usually 2 or 3, rather distant, on short pedicels. Lateral sepals varying in different specimens from 6 to 11 lines long, oblong-lanceolate, obtuse or scarcely acute, the dorsal sepal rather shorter and more acute, the petals somewhat shorter and more lanceolate. Labellum not $\frac{1}{2}$ the length of the sepals, shortly cuneate

at the base, deeply 3-lobed, the lateral lobes oblong-obtuse and entire, the middle lobe longer, ovate or broadly lanceolate, fringed near the base with a few marginal calli, the calli of the disk linear-clavate, rather long in 2 short converging rows, sometimes almost forming a semi-circle, sometimes rather longer and more parallel. Column shortly and rather broadly winged at the apex. Anthers with a long point.—*Fl. Austr.*, l.c.

Hab. : Given as a Queensland plant in *Muell. 2nd. Syst. Cens. Austr. Pl.* 192.

CHIOGLOTTIS, R. Br.

C. trilabra, *Fitzg.* in *Britt. Journ. Bot.* xxi. 304. Leaves 2, sessile, oblong-lanceolate, acute, about 10 lines long, 4 lines broad. Scape about 3 in. high, with 1 large sheathing acute bract below the ovary. Dorsal segment spatulate, acuminate, about 7 lines long, light red-brown tinged with green. Lateral segments linear, about 7 lines long, acute, yellowish. Labellum light red-brown, about 5 lines long, obovate, acute, on a broad claw; 1 large greenish reflexed callus near the base and about 9 or 10 other large, flat, dark red-brown calli along the centre of the disk, surrounded by numerous small clavate slender calli; the inner segments similar to the labellum, but not quite so broad and with hardly so fully developed calli. Column shorter than the inner segments, but slightly winged, the wings extending behind the anther into a deeply 4-toothed crest. Anther with a short point.—*R. D. Fitzg., l.c.*

Hab. : Given as a Queensland plant in *Muell. 2nd. Syst. Cens. Austr. Pl.* 192.

SUBTRIBE ARETHUSEÆ.

EPIPOGUM, Gmel.

Sepals and petals free, nearly equal, narrow, erect or spreading. Labellum sessile, large, ovate, concave, with a short obtuse spur at the base. Column very short, the margin membranous. Anther lid-like, with a large thick terminal appendage. Pollen-masses 2, granular, attached to the gland by long caudicles. Leafless terrestrial herbs, with a thick and fleshy or branching and coral-like rhizome. Scapes simple, ascending or erect, with a few scarious scales, not green. Flowers white (or sometimes pink?) in terminal racemes usually nodding or pendulous.—*Fl. Austr.* vi. 308.

E. nutans, *Lindl.* in *Journ. Linn. Soc.* i. 177; *Fl. Austr.* vi. 308; *F. v. M.* in *Fragm.* viii. 30 and ix. 50. Tuber oblong, $1\frac{1}{2}$ to 2 in. long and about 1 in. thick, lying horizontally in the soil 1 or 2 in. below the surface. Stem hollow, 3 to 9 in. high, with a diameter of nearly $\frac{1}{2}$ -in., very fragile and white, with about 4 oblong-ovate bracts below the flower, those subtending the flowers similar but smaller, all very thin. Flowers very numerous, crowded on the upper half of the stem, which portion before the flowers expand is bent down; nodding pedicels very slender and short, scarcely 2 lines. Ovary with 3 almost winged

angles, about 3 lines long. 3 outer segments about $\frac{1}{4}$ -in. long, narrow-lanceolate; 2 inner segments broader than the outer ones, but of equal length, all white and very delicate, the points connivent or slightly spreading. Labellum longer than the other segments, broadly ovate, concave, entire or the margins slightly fringed, sessile; spur about 2 lines long, very blunt and transparent, the disk with 2 rather distant and broad rows of papillæ, white with a few faint pink spots near the end. Column very short, appendage at the end of the anther large as itself.

Hab. : At the root of an old *Lantana* bush, Ithaca Creek. A rare plant, but of very wide range.

SERIES EPIGYNÆ.

Order SCITAMINEÆ.

ALPINIA, Linn.

A. arctiflora, *F. v. M.*, *Fragm.* viii. 25; *Fl. Austr.* vi. 266. Stems often 12 ft. high. Leaves long-lanceolate, about $1\frac{1}{2}$ ft. long and 2 to 4 in. broad, contracted into a very short petiole above the sheathing base. Panicle narrow, dense, pubescent as well as the under side of the leaves. Outer bracts few, rather above 1 in. long; those subtending the peduncles $1\frac{1}{2}$ in. long or shorter. Calyx about 1 in. long, narrow, dilated upwards and acutely 3-lobed. Corolla white, pubescent outside, the lobes about 4 lines long, the tube longer. Labellum longer than the corolla, 2-lobed, at least $\frac{1}{4}$ -in. long and broad. Connective produced beyond the anther-cells into a cuneate-obovate appendage of about 2 lines. Style glabrous. Capsule ellipsoid, 3-valved, many-seeded.—*Fl. Austr.*, l.c.

Hab. : Tropical scrub lands of Queensland.

Order AMARYLLIDÆ.

TRIBE EUAMARYLLIDÆ.

CRINUM, Linn.

C. brachyandrum, *Herb.* in Baker's *Handb. of Amaryl.* 83. Bulb 3 in. diameter; neck short. Leaves about 20 to a bulb, sub-erect, ensiform, 3 to 5 ft. long, 2 in. broad, deep-green, not tapering much to the point. Peduncle 2 ft. long. Flowers about 10 to 30 to an umbel, not perfectly erect; pedicels very short. Perianth-tube greenish, under 3 in. long; segments lanceolate, $\frac{1}{4}$ -in. broad, rather longer than the tube. Filaments scarcely an inch long. Style an inch long. Seeds 2 in a cell.—Baker's *Amaryllidæ*, 1888.

Hab. : Given as a Queensland plant in Muell. 2nd. *Syst. Cens. Austr.* Pl. 196.

J. G. Baker, in his excellent *Handbook of Amaryllidæ*, from which the above description is taken, says:—"Hab. : North Australia, introduced to the Calcutta garden by Dr. Carey, and sent by him to Dean Herbert about 1820. I have not seen any specimen, nor has it been figured. In its short stamens and style it agrees

with *C. venosum*, R. Br." And t. 2121, Bot. Mag.—which both Bentham in Fl. Austr. vi. 454, and F. v. Muell. in 2nd. Syst. Cens. Austr. Pl. 196, quote as the figure of this plant—Baker, in the work above referred to, p. 92, says is a figure of the South African *C. campanulatum*, Herb. It is most probable that *C. brachyandrum* is only a broad-leaved form of *C. venosum*.—F. M. B.

SERIES CORONARIÆ.

Order LILIACEÆ.

TRIBE ANTHERICEÆ.

TRICORYNE, R. Br.

T. muricata, Baker in Journ. Linn. Soc. xv. 363; Fl. Austr. vii. 52. Stems erect, rigid, with numerous slender striate or angular branches as in *T. anceps*, but the angles hispid with few rigid transparent hairs. Leaves reduced to scales. Flowers in umbels like *T. anceps*.—Fl. Austr., l.c.

Hab : Wide Bay.

DICHOPOGON, Kunth.

D. Sieberianus, Kunth, Enum. iv. 623; Fl. Austr. vii. 59. Habit of the slender narrow-leaved specimens of *D. strictus*. Stems mostly about 1 ft. high, simple or slightly branched. Leaves very narrow. Flowers in clusters of 2 or 3 like those of *D. strictus*, but the pedicels reflexed from near the base. Appendages to the base of the anthers rather long and almost adnate to the filament. Capsules always reflexed.—Fl. Austr., l.c.

Hab. : Given as a Queensland plant in Muell. 2nd. Syst. Cens. Austr. Pl. 199.

SERIES CALYCINÆ.

Order PALMÆ.

BACULARIA, F. v. M.

B. Palmeriana (n. sp.) (After Edward Palmer, M.L.A., to whom we are indebted for much useful information as to the uses made by the aboriginal of our indigenous plants.) Stem slender, seldom exceeding $\frac{1}{2}$ -in. diameter, generally much less than that; height not over 5 ft., usually 2 or 3 ft. when in fruit; leafy at the top, 6 to 10 forming the crown. Leaves, sheathing bases 3 or 4 in. long, prominently striated or ribbed, with thin scarious edges which do not form stipule-like lobes at the top; midrib forming a sharp projecting angle; petioles erecto-patent, 6 to 9 in. long, 1 to 2 lines broad, semi-terete; rhachis 4 to 7 in. long; segments 1 or 2 pairs, their bases broadly adnate to the rhachis and slightly decurrent, somewhat widened above the base, thence tapering to often a long acute point, the outer edge of the upper part with prominent teeth. Inflorescence

erect, slender, numerous amongst the leaves; peduncles flattened or semi-terete, 6 to 9 in. long; spike 3 to 5 in. long, enclosed at first in a membranous spatha, which is affixed immediately below the lowest flowers, open along one side. Flowers very small, but not gathered in a fit state to examine; young fruit gathered cylindric, somewhat fusiform or an elongated cone 4 to 6 lines long and 1 or 2 lines diameter. The whole plant more or less furfuraceous, those on the mountain top much more so than the others. My specimens were gathered at the base of the leading spur, at about 2,000 feet, and from that to the summit of the south peak, an altitude of over 5,000 feet.

Hab.: Bellenden-Ker Range.

In inflorescence it resembles *Bacularia minor*, F. v. M., but is widely different in foliage, the leaves being often so like *Nengella flabellata*, Becc., that they might be taken as belonging to that plant. From Baron Mueller's remarks, *Fragm.* xi. 58 and x. 121, it is probable that examples of this new species may have been forwarded to him in association with those of the *Bacularia* above referred to.

NIPA, Wurmb.

[Substitute the following for that given at page 568 in first part of this work.]

N. fruticans, var. Neameana, *Bail.*, Proc. Roy. Soc. Ql. v. 147. Stem short, thick, from a stout creeping rhizome, which is much flattened and about 1 ft. broad, with a thickness of about 6 in., rooting from the under surface only, the upper surface quite smooth. Leaves averaging about 6 or 7 to a plant, 4 usually living, and 2 or 3 decaying, pinnate, 25 ft. to 30 ft. long, the base very stout and clasping the very short erect stem. Pinnæ approximate, of from 50 to 60 pairs, 2 ft. to 4 ft. long, 2 in. to 3½ in. broad, plicate, the midrib sharply angled beneath, the upper side bearing lanceolate dark-brown centrally attached scales, two prominent ribs on each side of the midrib, and rib-like margins, the midrib confluent with the lower margin below the apex, forming an angular point of several inches in length. Peduncle 3 ft. or 4 ft. high, bearing 3 large and many small sheathing bracts; the lowest larger one very obtuse, having a strap-like appearance from the rather broad wings formed on either side, other bracts all pointed and much smaller, and one or two keeled; panicle of 5 branches, the lower lateral ones male, each much divided, the divisions ending in male catkins 1 or 2 in. long and about ½ in. in diameter, digitaliform, the terminal branch bearing a spherical head of from 1 ft. to 16 in. in diameter, composed of more or less angular fibrous drupes, each about 6 in. long by 3 in. broad, when ripe of a chestnut-brown and more or less glossy, each containing one round seed, which, although it may be eaten in an unripe state, becomes very hard and ivory-like when old.

Hab.: Herbert River.—*Arthur Neame*, 1880.

Mr. Neame writes that the Herbert River natives make use of the seeds when in an unripe state for food, as is done in other countries where the *Nipa* is indigenous.

SERIES NUDIFLORÆ.

Order PANDANACEÆ.

PANDANUS, Linn.

P. Solms-Laubachii, *F. v. M.* in der bot. Zeitung, 1887.

I have no copy of the work in which Baron Mueller has published the description of the above species, but in letter he tells me that "it grows to a height of 70 feet, the stem much thicker than that of *P. pedunculata*, while the leaves and fruit are only half the size, the fruitlets fewer in each set and less connate in the upper part."

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 202.

Order NAIADACEÆ.

TRIBE JUNCAGINÆÆ.

TRIGLOCHIN, Linn.

T. centrocarpa, *Hook.*, Ic. Pl. t. 728; Fl. Austr. vii. 167. A dwarf slender plant, usually densely tufted. Radical leaves subulate, often all under $\frac{1}{2}$ -in., rarely rather above 1 in. long. Scapes usually 1 to 2 in. long, or in luxuriant specimens twice as much, very slender, bearing fruits from below the middle. Flowers minute, in a short dense inconspicuous spike, which soon elongates so as to occupy half the scape. Perianth-segments from broadly ovate-acute to lanceolate and acuminate, $\frac{1}{4}$ to $\frac{1}{2}$ line long, from scarcely exceeding to twice as long as the anthers, the lower flowers often with only 1 anther-bearing segment and 2 lateral empty ones, the others with 3 or rarely 6 segments, all anther-bearing, but the majority of the numerous specimens seen in fruit with the perianth and stamens fallen away. Fruit linear, usually about 2 lines, but varying from 1 to 3 lines long, with 3 perfect cells, truncate at the top and obtuse or more or less 3-toothed with the 3 stigmas, each perfect carpel 3-ribbed on the back, the lateral ribs with either a prominent angle or a tooth or spur at the base, the 3 barren carpels sometimes as thin as in *T. striata*, sometimes as thick as the perfect ones but solid inside, and in some small specimens only 1 seed ripens in the whole fruit.—*Benth.* in Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 204.

T. c. var. calcitrapa, *Benth.*, Fl. Austr. vii. 167. Fruits fully 3 lines long, the basal spur 1 to $1\frac{1}{2}$ line, or in one fruit 2 lines long.—*Benth.* in Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 204.

SERIES GLUMACEÆ.

Order CENTROLEPIDÆÆ.

CENTROLEPIS, Labill.

C. polygyna, *Hieron.*, Centrol. 96; Fl. Austr. vii. 203. Though slender and sometimes very small, this species is more rigid than its

nearest allies. Leaves capillary, usually 3 or 4 lines long. Scapes in the typical form usually about 1 in. long, though occasionally more than twice or scarcely half as much, of a rather dark colour as well as the floral bracts, which are close together, narrow, erect, rigid, glabrous, about 2 lines long, the outer one with a rigid awn at least as long and sometimes above twice as long, the inner one with a very short point. Flowers solitary or very rarely 2 together in the inner or upper bract, with a thin hyaline scale in all the specimens examined. Filament usually shortly adnate to the axis of the carpels, which I have not observed in other species. Carpels varying from about 6 to above 20; styles very shortly connate.—*Benth.* in *Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 207.

Order CYPERACEÆ.

TRIBE SCIRPEÆ.

CYPERUS, Linn.

C. subulatus, *R. Br.*, Prod.; *Fl. Austr.* vii. 281. Stems from a creeping rhizome rather slender, under 1 ft. high in the specimens seen. Leaves very narrow, often as long as the stems. Spikelets in dense clusters or short spikes in an umbel of few rays. Involucral bracts very narrow, almost filiform, 1 or 2 of them longer than the inflorescence. Spikelets brown, linear, acute, not very flat, 6 to 8 lines long and scarcely 1 line broad, 12 to 20-flowered, the rhachis bordered by hyaline wings. Glumes very narrow, erect but not very closely imbricate, acute or scarcely obtuse, the keel green, 3-nerved or sometimes 5-nerved, the sides brown and nerveless. Style 3-cleft. Nut rather broad, triquetrous, more than half the length of the glume.—*Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 211.

FIMBRISTYLIS, Vahl.

SECTION ABILDGAARDIA.

F. recta (n. sp.) Stems erect from a shortly creeping knotted rhizome, $1\frac{1}{2}$ to 2 ft. high, rather slender, flattened, sulcate-striate and rather rough. Leaves somewhat distichous, 6 to 9 in. long, $1\frac{1}{2}$ line broad, the end blunt with a small point, rather thick and rigid, the margins slightly rough, sheaths rather loose, with a more or less broad hyaline margin, which is more conspicuous on the lower sheaths, which are wanting in lamina. Spikelet solitary, erect, ovate to ovate-lanceolate, slightly flattened, $\frac{1}{2}$ to 1 in. long, 4 or 5 lines broad. Glumes more or less spiral, ovate, about 3 lines long, very thin, almost hyaline, deep-brown except the keel, which in the lower empty ones is often produced into a point. Stamens 3. Style slightly dilated, glabrous

or nearly so, branches 2 or 3. Nut white, pyriform, with 3 angles and tuberculate between them.

Hab.: Near Northcote.—*R. C. Burton*, 1878.

TRIBE RHYNCHOSPOREÆ.

SCHÆNUS, Linn.

SERIES LAXÆ.

Spikelets under $\frac{1}{2}$ -in. long, few, on slender pedicels. Hypogynous bristles usually present. Leaves at the base of the stem very narrow or subulate.

S. indutus, *F. v. M.* in *Fl. Austr.* vii. 372. Stems slender, attaining about 1 ft., at first clothed with long spreading hairs, but the older ones often glabrous. Leaves few at the base of the stem, almost subulate, 1 to 3 in. long, the outer ones with a short open sheath, the inner sheath close and slightly membranous at the orifice. Panicle very loose, few spikelets, all on long pedicels, solitary or clustered in the axils of short, slender, dark-brown, sheathing bracts. Spikelets dark-brown, lanceolate, flattened, about 3 lines long, with 2 or 3 flowers. Glumes very acute or the inner ones obtuse, 4 to 6 outer empty ones gradually shorter with the points sometimes slightly spreading. Hypogynous bristles 6 or fewer, very irregular, 1 or 2 longer than the young nut, the others often very small. Stamens 3. Nut not seen ripe.—*Fl. Austr.*, l.c.

Hab.: Given as a Queensland plant in *Muell. 2nd Syst. Cens. Austr. Pl.* 215.

TRIBE SCLERIEÆ.

SCLERIA, Berg.

S. ustulata (n. sp.) (So named from the scorched appearance of the spikelets.) A tall, erect, slender plant attaining 4 or more feet in height, of a deep-green colour except the spikelets. Stems triangular and leafy throughout. Leaves long and narrow, not at all or very slightly scabrous on the keel and margin, the sheath not winged, and no ligula. Inflorescence an umbelliferous panicle, the rays or branches of unequal length, very slender, the longer ones exceeding 3 in.; bracts setaceous. Spikelets 1 or 2 lines long, dark, on very slender stalks. Glumes closely imbricate, obtuse, the margins light-brown, the rest part of a dark colour nearly black. No spikelets of male flowers amongst the specimens examined. Nut nearly globular but at times showing 3 angles, almost purple, and about 1 line diameter in the Northern specimen; the nuts of the Southern plant are oblong, nearly 2 lines long, greenish-brown, showing slight angles and purple spots.

Hab.: Bellenden-Ker, at 4,000 to 5,000 ft. Amongst the specimens brought down, however, I find no male flowers. Wherever there was open space on the summit of Bellenden-Ker this dark-green graceful sedge formed dense patches. Some fruiting specimens sent to me from the Tweed River, in June, 1884, by Mr. Thos. Steel, seem identical with the Northern plant.

Order GRAMINEÆ.

TRIBE PANICEÆ.

PASPALUM, Linn.

P. pubescens, *R. Br.*, Prod.? If I am correct in identifying the plant, common at Harvey's Creek, as Brown's plant, then I think, if not allowed to rank as a species, it should undoubtedly as a marked variety. The whole plant is softly pubescent, attains about 2 ft. in height, is of spreading habit, and roots from the lower nodes. The leaves are broad with loose sheaths, the short scarious ligula hidden in long silky hairs; panicle of from 8 to 14 somewhat erect spikes, the longest of which are about 2 in.; spikelets orbicular, about $\frac{1}{2}$ -line diameter; glumes covered with a short purplish pubescence.

Hab.: Harvey's Creek, one of the creeks running into Russell River.

The description given in Brown's Prodrômus is insufficient to identify the plant without having a typical specimen to compare with. This Harvey's Creek grass, however, is so very distinct from the *P. orbiculare*, Forst., which—with *P. polystachyum* and *P. pubescens* of R. Brown—Bentham, in Fl. Austr. vii. 460, places under *P. scrobiculatum* of Linnæus, that I think it should be kept distinct.

PANICUM, Linn.

P. Prenticeanum (n. sp.) (After Dr. Chas. Prentice, who has paid much attention to *Gramineæ*.) A tall branching grass often attaining over 10 ft. in height. Stems slender, hard, seldom exceeding $\frac{1}{4}$ -in. diameter, often rooting from the lower nodes; upper nodes with a ring of short silky hairs. Leaves 6 to 10 in. long, $\frac{1}{4}$ -in. broad, tapering into long narrow points; midrib prominent, slightly pubescent; sheaths very loose and pubescent, much shorter than the lamina; ligula ciliate. Panicle about 6 in. long; rhachis pubescent, pedunculate above the last leaves, much branched, the branch slender erecto-patent, the lower ones often clustered. Spikelets pedicellate, about 1 line long, slightly pubescent. Outer glume scarcely acute, half or three-fourths the length of the others, 3-nerved; second and third glumes nearly equal and more or less distinctly 5-nerved; fruiting glume hard and glossy, sometimes showing 1 or 3 keels. Styles shortly united. Stigmas densely plumose, of a purple colour.

Hab.: Harvey's Creek, Russell River, and Tringilburra Creek; very abundant on the rich scrub lands, attaining frequently the height of 15 or more feet. The same grass is met with in New Guinea, as would appear from fragments having been received by the writer from the late Mr. C. H. Hartmann. Although a true *Panicum*, this fine species much resembles an *Isachne*.

P. vicinum (n. sp.) A creeping grass, rooting copiously from the lower nodes, ascending stems attaining from 1 to $1\frac{1}{2}$ ft. in height. Leaves lanceolate, hairy, 2 or 3 in. long and nearly $\frac{3}{4}$ -in. wide in

the broadest part, the points often much elongated, rounded to the contracted base; sheaths loose, pubescent; ligula more or less prominent and ciliate. Panicle narrow, about 6 in. long, of few erect slightly divided branches. Spikelets narrow, 2 or 3 lines long; the glumes rather distant, all except the fruiting one acute; keels rough, margins hyaline, of the first and second; outer one 3-nerved, three-fourths the length of the next; second and third 3 to 5-nerved, the second one the longest, the third with a rather large broad palea; fruiting glume oblong, smooth and glossy.

Hab.: Harvey's Creek, Russell River, on rich scrub land.

This new species in some respects approaches *P. foliosum*, but is of a much more delicate texture and growth, of differently formed panicle and glumes, the fruiting one not being at all rugose, and the margin of the leaves are not undulate as in *P. foliosum*.

SETARIA, Beauv.

S. viridis, Beauv.; Kunth., Enum., i. 151; Fl. Austr. vii. 494. An annual with the habit of *S. glauca*, but the spike-like panicle looser, 1 to 2 in. long in the typical form, but occasionally nearly twice that, the lower spikelets in distinct clusters or on short branches, the awn-like branches more irregular and often shorter, the asperities directed upwards as in *S. glauca*. Outer glume acute, about half the length of the spikelet; 2nd and 3rd glumes nearly equal, broad, concave, 5 or 7-nerved; fruiting glumes smooth and shining, the minute transverse wrinkles visible only under a lens.—Fl. Austr., l.c.

Hab.: Mansfield Downs.—Mrs. Hugh Moore.

CHAMÆRAPHIS, R. Br.

C. paradoxa, Poir., Dict. Suppl. ii. 189; Fl. Austr. vii. 499. A smaller plant than *C. spinescens*. Leaves mostly short and spreading. Panicle almost reduced to a simple spike-like raceme, the awn-like branches mostly bearing only a single spikelet near the base, the lower ones only occasionally more elongated with two distant spikelets, the rachis always produced into a long awn exceeding the spikelet. Spikelets acuminate, 4 or 5 lines long. Outer glume broad, thinly membranous, about $\frac{1}{2}$ -line long; second and third glumes nearly equal, striate with many nerves; fruiting glume oblong, acute, nearly 2 lines long, thin and almost nerveless.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 219.

TRIBE ANDROPOGONEÆ.

DIMERIA, R. Br.

D. glabriuscula (n. sp.) A slender, erect, glabrous, slightly branching, annual grass, of from 9 to 18 in. in height. Leaves with narrow erect laminae 1 to $1\frac{1}{2}$ in. long, the ligula truncate, and prominent for the size of leaf and stem. Spikes 2, filiform, $1\frac{1}{2}$ to 2 in.

long; spikelets about 1 line long. Outer glume setaceous, slightly spreading; the others—second with rigid keel and broad hyaline but not ciliate margins; third glume small, hyaline; flowering glume very short, hyaline, with terminal awn about 2 lines, twisted in the lower half.

Hab.: Harvey's Creek.

This new species is nearly allied to *D. tenera*, Trin., but differs from that species in its more rigidly erect growth, besides being glabrous, and wanting the ciliæ to the hyaline margins of the second glume.

SORGHUM, Pers.

S. laxiflorum (n. sp.) Decumbent, ascending to 2 or 3 ft., glabrous except the inflorescence and a slight downiness about the nodes, stems somewhat compressed. Leaves narrow, tapering to filiform points; ligula short, scarious, but almost hidden in the longish hairs at the top of the sheath. Panicle nodding, somewhat secund, 2 or 3 in. long, of few capillary branches never verticillate, solitary or in pairs and forked, each bearing usually 2 spikelets, the terminal one awned. Fertile spikelet scarcely 2 lines long, between two ciliate pedicels; outer glume densely clothed with dark-brown or at times light-brown hairs; second glume nearly glabrous, glossy, and of a very dark colour; third glume hyaline; awn over 1 in. long, much twisted in the lower half.

Hab.: Mulgrave River.

The awns of this Mulgrave River grass remind one of the Bunch Spear Grass by the manner in which they twist into knots, but it is a much more delicate grass. In inflorescence it approaches *Chrysopogon*, but the glumes are those of a *Sorghum*.

TRIBE AGROSTIÆ.

STIPA, Linn.

S. scabra, *Lindl.* in Mitch. Trop. Austr. 31; Fl. Austr. vii. 570. Stems in the typical form slender, tufted, 1 to 2 ft. high. Leaves subulate or filiform, rather short, glabrous or slightly pubescent, the upper sheath scarcely dilated; ligula very short, more or less ciliate. Panicle very loose, 6 to above 12 in. long, with long, capillary, slightly spreading, glabrous branches and pedicels. Outer glumes at first almost hyaline, at length often purplish or rigid, tapering into long points, the longest about $\frac{1}{2}$ -in. long. Flowering glume about 2 lines long, silky-hairy, entire at the top. Awn fine, glabrous, 3 in. long or more. Palea nearly as long as the glume.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 223.

AGROSTIS, Linn. (partly).

Spikelets small, 1-flowered, pedicellate in a loose spreading or narrow panicle, the rhachis of the spikelet articulate above the outer glumes, glabrous or nearly so, not produced beyond the flower. Glumes 3, 2 outer empty ones narrow, keeled, acute, unawned.

Flowering glume shorter, broad, thin, enveloping the flower, unawned or with a dorsal awn, attached below the middle, fine and twisted. Palea not above half the length of the glume, very thin and hyaline, often very minute or none. Styles very short, distinct. Grain enclosed in the glume, free from it.—Fl. Austr. vii. 575.

A. scabra, Willd., Spec. Pl. i. 370; Fl. Austr. vii. 576. Stems slender, tufted, 6 in. to above 1 ft. high. Leaves very narrow, almost filiform in the typical form, chiefly at the base of the stem. Panicle compound, very loose and slender, with spreading capillary branches. Outer glumes narrow, keeled, rather acute, about $\frac{1}{4}$ -line long. Flowering glumes shorter, hyaline, broad and enveloping the flower, obtuse, truncate, or slightly jagged, unawned. Palea none (or very minute?). Stamens 3.

Hab.: Stanthorpe.

TRIBE ISACHNEÆ.

ERIACHNE, R. Br.

E. avenacea, R. Br., Prod. Austr. vii. 629. Stems usually about 1 ft. high, slender, the nodes slightly bearded or rarely glabrous. Leaves very fine, subulate, erect chiefly at the base of the stem. Panicle loose, nearly simple or with a few capillary branches bearing 2 or 4 pedicellate spikelets. Outer glumes usually about 3 lines long, very acute or shortly pointed, prominently nerved, glabrous. Flowering glumes glabrous on the back except at the base, the margins ciliate with long hairs, tapering into an awn much shorter than the glume itself. Palea slightly hairy, acutely acuminate.—Fl. Austr., l.c.

Hab.: A form of the above grows on Walsh's Pyramid, Mulgrave River. It is of delicate growth, branching stems, and attains 2 or more feet in height.

E. pallida, F. v. M., Fl. Austr. vii. 631. Stems apparently about 2 ft. high, slender and branching. Leaves flat but narrow, with subulate points, glabrous. Panicle loose but narrow, 2 to 4 in. long, the spikelets all pedicellate. Outer glume glabrous, about 3 lines long, tapering into fine points. Flowering glumes longer, with fine points, but scarcely awned, glabrous on the back except near the base, the margins ciliate with long hairs. Palea hairy, tapering to a fine bifid point.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 225.

TRIBE FESTUCEÆ.

DIPLACHNE, Beauv.

D. Muelleri, Benth., Fl. Austr. vii. 619. A glabrous erect grass of about 1½ ft., nearly allied to *D. fusca*, with a similar foliage and inflorescence, but the spikelets fewer, pale-coloured, 5 to 8 lines long, with 8 to 12 flowers. Flowering glumes surrounded by a tuft of rather long hairs and the margins ciliate below the middle, the point of

the keel scarcely exceeding the hyaline margins, and the lateral nerves occasionally produced into minute points. Grain narrow-obovate, flattened.—*Benth., l.c.*

Hab. : Fragmentary specimens have been received from Mr. Alfred Henry which he collected in the vicinity of the Georgina River.

TRIRAPHIS, *R. Br.*

T. pungens, *R. Br.*, Prod. ; Fl. Austr. vii. 604. A glabrous slender grass of about 2 ft., branching at the base. Leaves chiefly in the lower part, very narrow and convolute, often subulate and rigid. Panicle loose but narrow, 3 to 4 in. long. Spikelets 4 to 5 lines long without awns. Outer empty glumes glabrous, narrow, coriaceous, 3 lines long or rather more, entire. Flowering glume shorter below the division, coriaceous, shortly silky-pubescent, the 3 awns nearly equal, all entire and slightly dilated and rigid at the base.—Fl. Austr., l.c.

Hab. : Islands of the Gulf of Carpentaria.

KÆLERIA, *Pers.*

(Named after Professor Kohler, a writer on GRAMINEÆ.)

Spikelets 2 or more flowered, flat, shortly pedicellate, numerous in a dense, spike-like, cylindrical or interrupted panicle, the rachis of the spikelet articulate between the flowering glumes, glabrous. Glumes keeled, acute or produced into short straight awns or points, 2 outer empty ones unequal and scarious on the margins only; flowering glume similar but more scarious or hyaline, the upper ones gradually smaller, the lowest the largest and sessile within the empty ones, the uppermost one or two usually empty. Palea very thin, acutely 2-keeled, 2-toothed or 2-pointed. Styles very short. Grain enclosed in the glume and palea free from them.—Fl. Austr. vii. 639.

K. phleoides, *Pers.* An erect tufted annual of 6 to 12 in., usually glabrous except long cilia on the margins and orifice of the leaf-sheaths. Spike-like panicle 1 to 2½ in. long, cylindrical or when large slightly branched. Spikelets about 2 lines long, with 5 to 7 flowers. Glumes very spreading, the larger ones 1½ line long with a point or awn rarely above 1 line long, the outer empty ones unequal, the lowest small and acute, the second shortly pointed and nearly as long as the flowering ones, the terminal empty glume or glumes usually broader, shorter, and awnless.

Hab. : Stanthorpe, Oct., 1889.

ERAGROSTIS, Beauv.

E. nigra, var. **trachycarpa**, *Benth.*, Fl. Austr. vii. 643. Stems tufted. Leaves narrow, glabrous. Panicle about 1 ft. long, very loose, with long capillary divided branches, bearing few small dark-coloured spikelets on long capillary pedicels, the spikelets ovate, 1 to

2 lines long, loosely 2 to 4-flowered, quite glabrous. Flowering glumes broad, obtuse or scarcely acute, hyaline, the lateral nerves scarcely conspicuous. Palea as long, usually broad. Stamens 3, with small anthers. Grain larger in proportion, globular, prominently rugose-tuberculate.—Fl. Austr., l.c.

Hab.: Stanthorpe.

GLYCERIA, R. Br.

G. Fordiana, *F. v. M.*, Fragm. viii. 130; Fl. Austr. vii. 657. An erect glabrous grass attaining 2 or 3 ft. Leaves flat, very scabrous. Panicle very loose, compound, 4 to 8 in. long, with very spreading capillary branches, mostly in pairs or threes. Spikelets lanceolate, mostly 4 or 5 lines long, 8 to 12-flowered. Outer glumes acute, 3-nerved; flowering glumes 5 or 7-nerved, $1\frac{1}{2}$ line long, surrounded by a tuft of hairs and shortly hairy or pubescent in the lower part, the midrib prominent but not reaching the obtuse hyaline apex, the lateral nerves shorter. Palea-keels scarcely ciliate.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 226.

TRIBE BAMBUSEÆ.

BAMBUSA, Schreber.

B. Moreheadiana (n. sp.) The Queensland Climbing Bamboo. (After the Hon. B. D. Morehead.) A rampant climbing plant scaling the tops of the highest trees of the scrubs, and hanging in festoons from the branches, probably the stems extending 200 or more feet in length. The largest diameter of stem measured 2 in., the hollow or pipe about one-third of its diameter; length of internode, under 1 ft.; the whole plant more or less clothed with dark-coloured bristle-like hairs or scales; stem-buds hemispheric, $\frac{3}{4}$ -in. diameter; stem-leaves with a lance-like lamina 2 or 3 in. long; the leafy shoots, which are numerous from the upper nodes, are much flattened, and the lamina of leaf measures from 6 to 10 in. long and from 1 to 2 in. broad, glabrous, with 6 or 7 parallel nerves on each side of the midrib, ending in filiform points, the margins entire except for a few distant minute teeth.

Hab.: Harvey's Creek, Russell River.

Already Baron von Mueller, in the Aust. Journ. of Pharm. 1886, drew attention to a Queensland species of *Bambusa*, but the specimens and the collector's notes he thought insufficient to name the species; and even now, not having seen the inflorescence, by some it may be deemed too early to have given to it specific distinction, but the uncertainty of the flowering of plants of the genus, and that the stems are being put to many useful purposes, is, I consider, sufficient excuse; and when the flowers and fruit are obtained the species can then be placed in the genus or tribe to which it may prove to belong.

Class III. ACOTYLEDONS or CRYPTOGAMS.

Order FILICES.

TRIBE OSMUNDEÆ.

TODEA, Willd.

T. (Leptopteris) Fraseri, *Hook. et Grev.*, Ic. Filic. t. 101; Fl. Austr. vii. 700. Trunk erect, 6 in. to 3 ft. high and seldom over 2 or 2½ in. diameter, more or less bearing the bases of the old fronds; the apex covered by somewhat glossy, short, obtuse scales; the crown of few fronds, generally under 12. Stipes 10 to 15 in. long, terete or nearly so, with few scales, slightly stained with chestnut. Fronds 2 to 3 ft. long, lanceolate in outline, bipinnate; pinnæ nearly opposite, about 30 on each side of rhachis, the centre ones about 6 in. long and 1½ in. wide; secondary rhachis narrowly winged; pinnules ¾-in. long, 2½ lines broad, serrately lobed; veins simple or forked, 1 to each tooth or lobe; spore-cases minute, in masses of from 2 to 5 at the base of the pinnule.

Hab.: In a deep rocky gully or creek on the summit of the south peak, Bellenden-Ker.

The thin dark-green pellucid fronds of this fern remind one of the New Zealand species *T. (Leptopteris) hymenophylloides*.

TRIBE HYMENOPHYLLÆ.

TRICHOMANES, Linn.

T. cuspidatum, *Willd.*, Spec. Pl.; *Hook. et Baker*, Syn. Filic. 73. Fronds distinctly but very shortly stalked, about ¼-in. broad, the outer edge rounded and more or less lobed, the base truncate or more or less cuneate; spurious veins distinct. Indusia 1 to 6, the tube sunk in the frond, the mouth dilated, but scarcely 2-lipped.—Syn. Filic., l.c.

Hab.: On the Daintree River.—*Pentzke*, F. v. M. Sou. Sci. Rec. 1883.

T. Motleyi, *Bosch.*, Hymenoph. Javan.; *Hook. et Baker*, Syn. Filic. 73. Fronds copious, imbricated, sessile, about ¼-in. broad, cordate-orbicular, nearly entire; spurious veins indistinct, the solitary exerted indusium placed in a deep apical sinus, the mouth spreading and much dilated, but entire.—Syn. Filic., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 229.

T. minutum, *Blume*, Filic. Javan.; Spec. Filic. i. 118. Rhizome filiform, creeping. Fronds densely matted on long slender stipes, the segments much cut or divided; but seems only to differ from *T. proliferum* in its much smaller size.

Hab.: On wet rocks, Whelanian Pools, Bellenden-Ker.

T. proliferum, *Blume*, Filic. Javan.; Spec. Filic. i. 118, t. 39. Rhizome creeping, densely matted. Fronds on long stipes, forked or

branched and entangled, 2 or more inches long, segments deeply palmate or digitately divided into linear obtuse lobes. Indusium sub-cylindrical, mouth obscurely 2-lipped.

Hab. : Whelanian Pools, on damp rocks.

T. digitatum, Swartz ; Spec. Filic. i. 119 ; Fl. Austr. vii. 702. Rhizome filiform. Fronds on rather long capillary stipes, $\frac{1}{4}$ to $\frac{1}{2}$ in. long, deeply and unequally divided into 3 to 6 broadly linear obtuse, entire, or notched lobes, bordered by a few small teeth. Indusia broader than in most species, but embedded in the apex of the lobes, with a very short, open, entire border.—Fl. Austr., l.c.

Hab. : On wet rocks, Upper Nerang Creek.—H. Schneider.

This species is placed in the Queensland Flora provisionally, Mr. Schneider's specimens being all sterile.

T. Barnardianum (n. sp.) (After G. Barnard, who, with F. J. Whelan and A. Meston, was the first to ascend the Bellenden-Ker Range, the habitat of the plant.) Rhizome filiform, bearing short, stiff, dark-coloured, hair-like scales. Fronds mostly under 1 in. long, somewhat ovate to nearly palmate in outline, dark-green, glabrous except for a few minute fuscous elongated scales on the rhachis, pinnate with pinnatifid or bipinnatifid pinnæ, or the whole frond bitripinnatifid; ultimate segments narrow-linear, obtuse, with entire margins, decurrent at the base, forming wings to the short stipes; wings ciliate with a fringe of prominent linear, dark-fuscous, hair-like scales; cells throughout very minute. Indusium rather large for the size of the frond, several towards the apex of the frond, urceolate-cylindric, the mouth spreading. Receptacles often long exserted and falcate.

Hab. : On wet rocks, Palm Camp, Bellenden-Ker, 4,000 ft.

This pretty little fern closely approaches the smaller forms of *T. pyxidiferum*, from which it may be easily distinguished by wider fronds, their very minute cell-areolation, and ciliated wings of stipes.

T. pallidum, Blume, Filic. Javan. (*T. glauco-fuscum*, Hook., Spec. Filic. i. 128, t. 40A.) Rhizome creeping, filiform, densely matted, tomentose. Stipes 1 to 2 in. long, wiry. Fronds 2 to 4 in. long, 1 to 2 broad, ovate-lanceolate, acuminate, bipinnatifid, just divided down to a narrowly winged rhachis; lower pinnæ ovate-rhomboidal, divided more than halfway down, and the lobes again slightly cut; substance firm, glaucous on the under side and more or less clothed with light-brown hairs. Indusium axillary on the segments on both sides, the tube deeply sunk, the mouth dilated but scarcely 2-lipped.—Syn. Filic. in part.

Hab : On rocks, South Peak, Bellenden-Ker, 5,000 ft.

T. maximum, Blume, Filic. Javan. Rhizome stout, creeping. Stipes strong, erect, 3 to 6 in. long. Frond 12 to 18 in. long, 6 to 9 in. broad, ovate-quadripinnatifid; pinnæ erecto-patent, ovate-lanceolate, the largest 4 to 6 in. long, 2 in. broad; pinnules lanceolate-deltoid, 1 in. or more long, cut down to the rhachis into segments, which are again deeply pinnatifid; ultimate segment $1\frac{1}{2}$ to 2 lines long,

slightly flattened, texture subrigid, surface naked, dark-green; a central costa only in each segment. Indusium 2 to 8 to a pinnule; cylindric, the mouth dilated but not 2-lipped.—Syn. Filic. 86.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 230.

T. apilifolium, Presl.; *Hook. et Baker*, Syn. Filic. ed. 2, 86; Fl. Austr. vii. 703. Rhizome thick and knotty. Fronds 4 to 8 in. long, broadly ovate-lanceolate in outline, bipinnate with deeply bipinnatifid pinnules. Primary pinnules 1 to 2 in., secondary about $\frac{1}{2}$ -in. long; segments very narrow, linear, thin, 1-nerved. Indusia almost embedded in the short inner lower lobes, the tube shortly turbinate, the border spreading often rather broad, approaching that of a *Hymenophyllum*. Stipes short or long, hispid at the base with spreading bristles. *T. meifolium*, Bory.—Fl. Austr., l.c.

Hab.: Given as a Queensland plant in Muell. 2nd Syst. Cens. Austr. Pl. 230.

T. Sayeri, *F. v. M. et Baker* in Britten's Journal of Botany, xxv. 163, 1887.

The above is from Muell. 2nd Syst. Cens. Austr. Pl. 230; but I find no such species mentioned in the work referred to. The only *Trichomanes* mentioned at pages 162 and 163 is *T. parvulum*, Poir?—which implies a doubt as to its being the *T. parvulum* of J. L. M. Poirét. I may here mention that the *Trichomanes* and other half-dozen ferns mentioned in the above notice as having been gathered on Bellenden-Ker were in all probability got on a mountain to the eastward of Bellenden-Ker, and known as "Chickaboogalla," the altitude of which is not over 3,970 ft.; Messrs. Sayer and Davidson not having been on Bellenden-Ker, in fact they had a better field for collecting on Chickaboogalla.

HYMENOPHYLLUM, Sm.

H. tunbridgense, var. exsertum, Bail. The Bristle-bearing Filmy Fern. This fresh form differs in having a long bristle-like exserted receptacle; the indusium also was longer than usual. The receptacle is also exserted in the Lord Howe's Island specimens of this fern, but there the plant is of much coarser growth.

Hab.: Summit of Palm Camp, Bellenden-Ker.

H. trichomanoides (n. sp.) Rhizome nearly or quite glabrous, filiform, creeping up the stems of trees in long strings, seldom if ever forming matted patches on old damp logs. Fronds narrow or broadly lanceolate in outline; sometimes the apex is much elongated, 3 to 5 in. long including the slender stipes, which is generally less than an inch long; the rhachis is very narrowly winged but not the stipes, bipinnate, the lower pinnules often somewhat flabelliform and more or less deeply divided, the upper pinnæ of from few to a single lobe, all linear, obtuse, with entire edges. Sori supra-axillary, deeply sunk on one or more of the lobes. Indusium oblong, $1\frac{1}{2}$ line long, the valves entire, obtuse, receptacle always protruding from 1 to more than 2 lines in length.

Hab.: Summit of Bellenden-Ker.

The outline form of this, especially when the pinnæ and pinnules are crowded, remind one of *H. polyanthos* of New Zealand, but it does not stain paper, and has not

the fragrance of that fern, besides the difference of indusium and receptacle, which latter gives to this new species the appearance of a *Trichomanes*. Indeed it might be placed in either *Trichomanes* or *Hymenophyllum*; I place it in the latter because the whole of the exerted portion of the indusium consists of the 2 long obtuse lobes.

TRIBE CYATHEÆ.

ALSOPHILA, R. Br.

A. Rebecceæ, var. commutata. Wig Fern-tree. Trunk 6 to 12 ft. or more high, slender, seldom exceeding a diameter of more than 2 in., dark-coloured. Fronds 6 to 8 ft. long, the stipes shortly appressed to the trunk for a few inches, and more or less clothed with simple or furcated long hair-like scales, which with the metamorphosed lower pinnæ crown the stem with a wig-like growth, the divisions of which growth are narrow, much forked, and very intricate, hymenophylloid, and of a greenish or sometimes purplish colour, the larger pinnæ about 2 ft. long, pinnules 2 to 4 in. long, the attenuated apex prominently serrated, the lower base with a rounded auricle, at times prominent, the upper truncate and parallel to the secondary rhachis. Veins forked with 3 or 4 branches, alternating with simple ones. Sori forming erect heaps in one or two rows on the middle of the veins.

Hab.: Bellenden-Ker, in a damp gully at an altitude of 4,000 ft.

This form, in the metamorphosis of its pinnæ and pinnules, resembles the old species *A. capensis*, and under that species I placed it in my report on the botany of the Bellenden-Ker district. Baron Mueller, however, correctly points out its nearer approach to *A. Rebecceæ*, but the curious change noticed in this form I never saw taking place in the typical form of that species, although many trees were growing in the same locality.

A. Robertsiana, F. v. M., Fragm. v. 54, 117; Fl. Austr. vii. 712. Slender-stemmed Fern-tree. Trunk slender, smooth, 10 to 12 ft. high, elongated beyond the last fronds, which latter do not form the usual crown, but are somewhat distantly placed on the stem.

Hab.: Palm Camp, Bellenden-Ker.

TRIBE POLYPODIEÆ.—SERIES A.

DAVALLIA, Sm.

D. tripinnata, F. v. M., Fl. Austr. vii. 717. Hairy Fern. The fronds, which are clothed with soft white hairs, form a most graceful tuft at the end of a very shortly creeping rhizome. The plant is abundant upon the damp rocks of dark close gullies.

This is one of the most lovely of ferns, and until quite lately was only known from a single frond brought by Mr. Walter Hill from the Bellenden-Ker Range in 1873.

VITTARIA, Sm.

V. (Tænloopsis) falcata, Kunze; *Fée*, Vittar. p. 20, t. 4, f. 1; *Hook.*, Spec. Filic. v. 182; *Syn. Filic.* 395. Fronds 4 or 5 in. long, $\frac{1}{2}$ -in. broad, the point blunt, the lower part narrowed gradually to the base; texture leathery and very thick; a distinct raised midrib

attaining the apex in the barren fronds, but lost in the fertile ones; veins short, oblique, parallel, immersed; sori quite sunk in slightly intramarginal grooves.

Hab.: Bellenden-Ker.—*Sayer*, F. v. M. Sou. Sci. Rec. 1887.

V. (Tæniopsis) wooroonooran (n. sp.) (Name, the aboriginal one for Bellenden-Ker.) Rhizome erect or slightly repent, clothed with long, light-brown, linear-lanceolate scales. Fronds 1 to $1\frac{1}{2}$ in. long, 2 or 3 lines broad, coriaceous, spreading horizontally, very obtuse, tapering to a very short stipes, bearing minute, scattered, setose scales; veins once forked from a central costa, but both concealed by the thick substance of the frond; sori continuous in a groove more or less distant from the margin on the upper part of the frond, but never meeting at the apex.

Hab.: On rocks amongst moss at an elevation of from 4,000 to 5,000 ft., Bellenden-Ker.

In some respects this species approaches *V. falcata* and *V. minor*, but is equally distinct from both.

PTERIS, Linn.

P. aquilina, *Linn.*; **var. lanuginosa**, *Hook.*, Spec. Filic. ii. 196. The Woolly Bracken. At between 2,000 and 5,000 ft. above sea-level we found some good-sized patches of this fern. It is a tall strong plant, very hard, but, from being closely covered with soft woolly down, has a somewhat soft appearance, and grows in intricate masses 5 or 6 ft. high, very difficult to pass through.

BLECHNUM, Linn.

B. Whelani (n. sp.) (After Sergt. E. J. Whelan, to whom the members of the expedition were greatly indebted for assistance.) Rhizome slender and erect, from 3 to 6 in. high, densely paleaceous at the summit, with ferruginous scales, and bearing a crown of many dark-green fronds; stipes blackish, slightly scabrous, clothed at the base with dark linear scales, about 1 ft. long and slender; the frond or leafy portion of about equal length with the stipes, bearing about 15 nearly opposite linear-lanceolate pinnae 3 to 6 in. long, the lowest of which are petiolulate, the central ones sessile, and one or two of the terminal ones having their bases adnate to the rhachis, the margins serrated, teeth small and blunt, except those of the elongated point; veins simple or once forked; sori close to the costule on the lower half or three-fourths of the pinna.

Hab.: Bellenden-Ker, at an elevation of from 4,000 to 5,000 ft. above sea-level.

ASPLENIUM, Linn.

A. Hookerianum, *Colens.*; *Hook.*, Spec. Filic. iii. 194; Syn. Filic. 213; Fl. Austr. vii. 747. A small tufted fern. Fronds rarely above 6 in. long, slender but rather rigid, mostly bipinnate, the rhachis slightly scaly-hairy. Primary pinnae in the lower part of the frond $\frac{1}{2}$ to 1 in. long, with 6 to 10 distinct, oblong-cuneate, dentate

segments 1 to 2 or rarely 3 lines long, the lower ones tapering to a petiole, the upper ones as well as the upper pinnæ small and confluent. Veins diverging, free. Sori few, usually only 1 or 2 on each segment, large in proportion.

The above is Hooker's description in the work quoted. Our plant is a form differing as under :—

A. Hookerianum, Colens., var. Rhizome erect or shortly repent, the crown and base of stipes densely clothed with dark-brown scales; stipes tufted, slender, 4 or 5 in. long, dark-brown and slightly scaly. Fronds bipinnate, narrow-lanceolate, in outline attaining 8 in. in length, and not over 3 in. wide in the broadest part; pinnules cuneate, the lower ones often divided to the base, the end inciso-dentate. Sori usually long and narrow.

Hab. : Whelanian Pools.

ASPIDIUM, Swartz.

A. ramosum, var. lineare. Rhizome pubescent, very slender, climbing like ivy up to stems of trees and shrubs, often 10 or 12 ft. Fronds crowded, linear in outline, 6 to 15 in. long and seldom exceeding 1 in. broad; pinnæ 30 to 40 on each side of the rhachis, not exceeding 8 lines long in the centre of frond and much smaller towards each end, obliquely oblong, the upper margin slightly crenulate, with a short blunt auricle at the base, lower margin nearly straight, base parallel with the rhachis; terminal pinna lanceolate or somewhat rhomboidal; veins once forked; sori on the end of the upper branch usually at a distance from the margin.

Amongst the many forms of *A. ramosum* that have been considered distinct by botanists I cannot find one that fully agrees with the present, so think it better to give it a distinctive name. During the past few months, while on and about Bellenden-Ker, I have found it always the same in both habit and form, and even when growing with the normal form it is at once detected; the fronds being always long and narrow, and crowded so closely on the slender rhizome as to appear massed together.

Hab. : Tringilburra Creek.

A. acuminatum, var. villosum. This delicate fern is met with only, so far as at present known, on the summit of Bellenden-Ker. It has a shortly creeping rhizome, more or less covered at the end with broad brown scales; the stipes are slender, 3 to 6 in. long, clothed with short soft hairs, and a few scales at the base. Fronds somewhat deltoid, 3 to 7 in. long and broad; rhachis and midrib densely clothed with rather long soft white hairs. Sori scanty on the few fronds gathered.

Hab. : South Peak, Bellenden-Ker.

SERIES B.

POLYPODIUM, Linn.

P. fuscopilosum, Baker et F. v. M., Brit. Journ. Bot. xxv. 163. Rootstock short-creeping, hypogæous. Fronds contiguous,

nearly sessile, lanceolate, simply pinnate, moderately firm in texture, erect, elastic, green and copiously clothed with short brown hairs on both surfaces, 4 to 5 in. long, $\frac{1}{2}$ to $\frac{3}{4}$ in. broad at the middle, narrowed gradually to both ends. Pinnæ very numerous, broadly adnate at the base, contiguous, entire, lanceolate, subobtusely, the central ones $\frac{1}{2}$ to $\frac{3}{4}$ in long, 1 to $1\frac{1}{2}$ line broad. Veins distinctly visible; costa zigzag; veinlets few, erecto-patent, simple. Sori globose, medial, slightly immersed. Intermediate between *P. parvulum*, Bory, and *P. fuscatum*, Blume.—*Baker, l.c.*

Hab.: Bellenden-Ker, at 4,000 to 5,000 ft., on rocks and tree-trunks. The species was first determined from specimens gathered by Messrs. Sayer and Davidson on Chickaboogalla.

P. albosetosum (n. sp.) (Name referring to the white bristle-like hairs in the sori.) Rhizome erect or very shortly creeping, the blunt apex covered by broadly ovate, imbricated, light-brown scales. Fronds tufted, all under 2 in. long and 3 lines broad, tapering from a broad obtuse end to very short stipes, which seldom if ever exceed 3 lines in length, hairy throughout with light-coloured fine hairs, those of the stipes short and strigose, those of the frond soft and rather long, and all of a very light colour, nearly white; veins simple or once forked; sori orbicular, with bristle-like white hairs amongst the spore-cases, at the apex of fork of the vein, and forming a single row on each side of the costa on the upper portion of the frond.

Hab.: On rocks and stems of trees, Bellenden-Ker, at an altitude of from 4,000 to 5,000 ft.

This small fern is closely allied to *P. Hookeri*, but separated by the form of the scales, colour of the hairs—which do not form so decided ciliæ to the margins—and general appearance.

NOTHOLÆNA, R. Br.

N. glabra, *Bracken.*; *Hook.*, Spec. Filic. v. 115; from Bracken. Fil. U. S. Expl. Exp. 21. Rhizome tufted. Fronds 4 to 6 in. long on slender stipes, nearly or quite glabrous, lanceolate to ovate-lanceolate in outline, bitripinnate, primary and secondary divisions ovate-oblong and obtuse, the ultimate divisions or segments 2 or 3 lines long and 2 lines broad. Oblong, irregularly cut into obtuse lobes.—*Hook., l.c.* Venation obscure. Sori completely those of *Notholæna*, without any trace of indusium and following the sinuosities of the frond.

Hab.: Near Brisbane, *Dr. Prentice*; to whom I am indebted for description of sori. Fertile fronds were before unknown; at least Hooker's specimens received from Brackenridge were sterile, and it is probable that all the specimens collected were the same.

GRAMMITIS, Swartz.

G. (Sellignea) membranacea, *Blume*, Fil. Jav. 123, t. 52, f. 2. Rhizome slender, creeping, climbing up the stems of trees by the aid of adventitious roots emitted from the under side, the upper surface densely paleaceous, with rather long, dark-brown, narrow

scales. Fronds membranous, somewhat distantly placed on the rhizome, simple or variously lobed, and either form soriferous, glabrous, 6 to 12 in. long, tapering to a rather long stipes and elongated apex, the undivided fronds attaining a width of 2 in. in the widest part, lobes on the divided ones from 1 to 12, spreading tapering towards the point, but cut down so as to leave but a wing on the costa in the sinus about $\frac{1}{4}$ or $\frac{1}{2}$ in. wide, the segments varying from 1 to 4 in. long; venation rather open, forming large hexagonal areoles containing forked free veinlets; sori in short lines or oblong masses, often not exceeding 2 or 3 lines on the divided fronds, and distant from the costule, but on the entire simple fronds often reaching from near the costa to near the margin, but these lines are frequently interrupted.

Hab.: Bellenden-Ker, at an elevation of 4,000 ft.

The habit of this fern and its variously formed fronds reminds one of *Polypodium scandens*, Forst., and further, when dry, it possesses the same fragrance as that and some allied *Polypodiums*. To pteridologists, the meeting of this species, bearing its various forms of foliage, is most interesting, as it saves the mistake being made of multiplying species, and completes the description of an old species. *G. Sayeri*, F. v. M. and Baker, has been named from fronds of this species; and in all probability *G. Wrightii*, Hook., is but another form. I might here remark that probably Mr. Baker was not far wrong when he placed the Queensland fern, *G. ampla*, F. v. M., under *G. elliptica*, for it varies greatly in the form of the fronds. In cultivation, the fronds are much smaller and often entire, and these as frequently bear sori as the more developed deeply lobed ones. On starved plants, indeed, of *G. ampla*, the almost only distinctive mark to separate it from *G. membranacea* is its broad flattish rhizome and a slight difference, perhaps, in the venation.

Order MUSCI.

TRIBE DICRANEÆ.

ANISOTHECIUM, Mitt.

Tufted diœcious or monœcious mosses, with slightly divided stems. Leaves narrow, scarcely shining, somewhat soft, areolation pellucid; perichætalia somewhat diversiform. Thecæ on stout elongated peduncles, firm, operculum rostrate, peristome-teeth strong and somewhat broad.—South American Musci, *W. Mitten*.

A. pycnoglossum, Broth. (n. sp.)

Hab.: Mulgrave River.

BRUCHIA, Schw.

B. Whiteleggei, C. M.

Hab.: Beenleigh.—C. J. Wild.

DICRANUM, Fedw.

D. suberectum, Hampe.

Hab.: Palm Camp, Bellenden-Ker, 4,000 ft.

TREMATODON, Cl. Rich.**T. longescens**, *C. M.*Hab. : Beenleigh.—*C. J. Wild.***T. Baileyi**, *Broth.* (n. sp.)

Hab. : Mulgrave River.

HOLOMITRIUM, Brid.**H. perichætile**, *Brid.*Hab. : Pimpama.—*C. J. Wild.***LEUCOLOMA**, Brid.**L. serratum**, *Broth.* (n. sp.)

Hab. : Mount Mistake.

L. austro-scoparium, *C. M.* in Melb. Herb.

Hab. : Summit of Bellenden-Ker, 5,000 ft.

L. subintegrum, *Broth.* (n. sp.)

Hab. : Palm Camp, Bellenden-Ker, 4,000 ft.

LEUCOPHANES, Brid.**L. australe**, *Broth.* (n. sp.)

Hab. : Freshwater Creek, Trinity Bay.

CAMPYLOPUS, Brid.**C. pudicus**, *Hornsch.*

Hab. : Brisbane River scrubs.

C. subtorquatus, var. **flavifolius**, *C. M.*Hab. : Pimpama and Burpengary.—*C. J. Wild.*

TRIBE LEUCOBRYEÆ.

LEUCOBRYUM, Hampe.**L. vesiculosum**, *C. M.* in Melb. Herb.

Hab. : Whelanian Pools, Palm Camp, and Harvey's Camp, Bellenden-Ker.

TRIBE TORTULEÆ.

WEISIA, Hedw.**W. pimpamæ**, *C. M.* (n. sp.)Hab. : Pimpama Creek.—*C. J. Wild.***W. (Hyophila) angustifolia**, *C. M.* (n. sp.)Hab. : Toowoomba.—*C. J. Wild.***W. (Hyophila) pugionifolia**, *C. M.* (n. sp.)Hab. : Burnett River, *C. T. Musson* ; Brisbane River, *H. Tryon*.

TRIBE ORTHOTRICHEÆ.

MACROMITRIUM, Brid.

M. pusillum, *Mitt.*

Hab. : Pimpama, *C. J. Wild.* ; Tringilburra Creek.

M. caloblastroides, *C. M.* (n. sp.)

Hab. : On trees, Brisbane River scrubs.

M. dimorphum, *C. M.* (n. sp.)

Hab. : On trees, Taylor's Range.

M. macronulatum, *C. M.* (n. sp.)

Hab. : Burpengary.—*C. J. Wild.*

M. Hartmanni, *C. M.*

Hab. : Gympie.—*C. T. Musson.*

SCHLOTHEIMIA, Brid.

Tufted, creeping, usually dark-coloured mosses, with erect short branches, growing in tufts on trees. Stems and branches red-brown or blackish below, yellow or greenish at the tips. Leaves imbricated all round, oblong; cells circular, opaque, punctiform. Fruit-stalk terminal, long or short. Capsule erect, subcylindric, smooth or grooved, not annulate. Teeth in 2 rows; outer 16, in pairs, revolute; inner 16 or more, irregular, erect, conniving and forming a cone. Operculum conical, beaked. Calyptra conical or mitriform, rough at the tip, 4 or more lobed at the bottom, the lobes inflexed.—*Hook.* in *N. Z. Fl.*

S. Baileyi, *Broth.* (n. sp.)

Hab. : Summit of Bellenden-Ker, 5,000 ft.

TRIBE BRYEÆ.

BRYUM, Linn.

B. Baileyi, *Broth.* (n. sp.)

Hab. : Freshwater Creek, Trinity Bay.

B. synoicum, *C. M.*

Hab. : Bunya Mountains.

RHIZOGONIUM, Brid.

R. brevifolium, *Broth.* (n. sp.)

Hab. : Bellenden-Ker.

TRIBE HOOKERIEÆ.

HOOKERIA, Sm.

Monœcious or diœcious mosses. Stems prostrate or creeping, rarely suberect, variously branched, often pinnately; branches usually compressed or quite flat. Leaves usually membranous, imbricate all

round, or distichous; lateral often dissimilar, stipule-like and oblique; no nerves, or 1 or 2; cells lax, rhomboid or hexagonal. Fruit-stalk lateral, slender, often recurved at the top. Capsule ovoid, cernuous; annulus obscure or none; peristome double; outer of 16 lanceolate-subulate incurved teeth, ribbed on the outer face, trabeculate on the inner; inner a membrane divided into 16 keeled teeth, with rarely interposed cilia; operculum beaked. Calyptra mitriform, naked or fringed at the base.—*Hook.*, N. Z. Fl. 492.

H. (Callicostella) Baileyi, *Broth.* (n. sp.)

Hab.: Harvey's Creek.

TRIBE NECKEREÆ.

CRYPHÆA, *Brid.*

C. viridissima, *C. M.*

Hab.: Pimpama.—*C. J. Wild.*

PTYCHOMNION, *J. Hook. et Wils.*

P. aciculare, *Labill.*

Hab.: Palm Camp, Bellenden-Ker.

PTEROBRYUM, *Hornsch.*

P. (Trachyloma) recurvulum, *C. M.* (n. sp.)

Hab.: Bellenden-Ker.

METEORIUM, *Brid.*

M. flum, *C. M.* (n. sp.)

Hab.: Port Curtis.—*C. T. Musson.*

M. sigmatophyllum, *C. M.* in *Melb. Herb.*

Hab.: Top Camp, Bellenden-Ker, 5,000 ft.

PHYLLOGONIUM, *Brid.*

P. cymbifolioides, *C. M.*

Hab.: Pimpama Scrub.—*C. J. Wild.*

TRIBE STEREODONTEÆ.

ENTODON, *C. M.*

E. flaccidisetus, *C. M.* (n. sp.)

Hab.: North Pine.—*C. T. Musson.*

ISOPTERYGIUM, *Mitt.*

I. byssicaule, *C. M.*

Hab.: Brisbane scrubs.

ECTROPOTHECIUM, *Mitt.*

E. umbilicatum, *C. M.*

Hab.: Gympie, *C. T. Musson*; Bellenden-Ker, *Bail.*

TRIBE HYPNEÆ.

FABRONIA, Raddi.

F. brachydontia, *C. M.* (n. sp.)

Hab.: Brisbane River scrubs.

RHYNCHOSTEGIUM, Schimp.

R. nano-pennatum, *Broth.* (n. sp.)

Hab.: Bellenden-Ker;

RHAPHIDOSTEGIUM.

R. ovale, *Broth.* (n. sp.)

Hab.: Tringilburra Creek.

THUIDIUM, Schimp.

T. pennula, *C. M.* (n. sp.)Hab.: North Pine.—*C. T. Musson.***T. pennula**, *C. M.*; **var.**

Hab.: Bellenden-Ker, at 4,000 ft.

T. obtusi-rameum, *Broth.* (n. sp.)

Hab.: Bunya Mountains.

T. erectum, *Hpe. et C. M.*Hab.: North Pine River.—*C. T. Musson.***T. pallido-limbato**, *Broth.* (n. sp.)

Hab.

CHÆTOMITRIUM.

C. nematosum, *Broth.* (n. sp.)

Hab.: Harvey's Creek, Russell River.

TRICHOSTELEUM.

T. Kerlanum, *Broth.* (n. sp.)

Hab.: Harvey's Creek, Russell River.

TRIBE SKITOPHYLLÆ.

FISSIDENS, Brid.

F. incurvo-bryoides, *C. M.* (n. sp.)

Hab.: Mount Mistake.

F. Whiteleggei, *C. M.*Hab.: Nerang.—*H. Schneider.***F. liliputano-incurvus**, *C. M.* (n. sp.)Hab.: Beenleigh.—*C. J. Wild.***F. liliputano-bryoides**, *C. M.* (n. sp.)Hab.: Victoria Park.—*H. Tryon.*

F. obtuso-acuminatus, *C. M.* (n. sp.)Hab. : Brisbane.—*C. J. Wild.***F. tenellus**, *Hook. et Wils.*Hab. : Ashgrove, Enoggera Creek.—*C. J. Wild.***F. oblongifolius**, *Hook. et Wils.*Hab. : Moreton Island.—*H. Tryon.***F. Kerianus**, *C. M.* (n. sp.)

Hab. : Mulgrave River.

Order **HEPATICÆ.****SARCOMITRIUM**, *Mitt.* (*ANEURA*.)

Frond pinnatifid or 2-pinnate, sinuate, rather thick, with a broad undefined nerve or none. Inflorescence dioecious. Fruit from the margin of the frond underneath. Involucre short, cup-shaped, torn. No perianth. Calyptra subcylindric, fleshy. Capsule ovoid or oblong, on a slender fruit-stalk; elaters attached to the tips of the valves, each with a single broad fibre. Antheridia immersed in marginal receptacles.—*N. Z. Fl.* 543.

S. (Aneura) multifidum, *Mitt.*

Hab. : In still water, Bowen Park, Brisbane.

ASTERELLA.**A. hemisphærica**, *Beauv.*

Hab. : Brisbane.

BALANTIOPSIS, *Mitt.***B. diplophylla** (*Taylor*), *Mitten.*

Hab. : Helidon.

BAZZANIA, *Gray.***B. filiformis**, *Steph.*Hab. : Bellenden-Ker.—*Sayer and Davidson.***B. acereta**, *L. et L.*

Hab. : Palm Camp, Bellenden-Ker, 4,000 ft.

B. Mittenii, *Steph.*

Hab. : Near Brisbane.

CEPHALOZIA, *Dunn.***C. dentata**, *Raddi.*Hab. : Brisbane.—*C. J. Wild.***DENDROCEROS**, *Nees.***D. Muelleri**, *Steph.*Hab. : Bellenden-Ker.—*W. A. Sayer.*

FIMBRIARIA, Raddi.**F. Whiteleggeana**, *Steph.*

Hab.

FRULLANIA, Raddi.**F. reptans**, *Mitt.*Hab.: Toowoomba.—*C. J. Wild.***F. exigua**, *Steph.*Hab.: Toowoomba.—*C. J. Wild.***F. pentapleura**, *Tayl.*Hab.: Brisbane.—*C. J. Wild.***F. nodulosa**, *Nees.*

Hab.: Harvey's Creek.

F. Hampeana, *Nees.*Hab.: Toowoomba, *C. H. Hartmann*; Brisbane River, *Amalie Dietrich*.**JUNGERMANNIA**, Linn.**J. hirtella**, *Web.*

Hab.: Summit of Bartle-Frere.

NARDIA, Gray.**N. montana**, *Steph.* = **JUNGERMANNIA MONTANA.**Hab.: Bellenden-Ker.—*Karsten.***N. fragilis**, *Steph.* (n. sp.)

Hab.: Palm Camp, Bellenden-Ker, 4,000 ft.

ACROLEJEUNEA.**A. novæ-guineæ**, *Steph.*Hab.: Trinity Bay.—*W. A. Sayer.***COLOLEJEUNEA.****C. trichomanis**, *Gottsch.*Hab.: Bellenden-Ker.—*Karsten.***HYDROLEJEUNEA.****H. sacculifera**, *Steph.*

Hab.: Rockingham Bay.

H. Sayeri, *Steph.*Hab.: Trinity Bay.—*W. A. Sayer.***ENOSMOLEJEUNEA.****E. Baileyana**, *Steph.* (n. sp.)

Hab.: Bellenden-Ker.

LEPTOLEJEUNEA.

L. denticulata, *Steph.*Hab.: Bellenden-Ker.—*W. A. Sayer.*

MASTIGOLEJEUNEA.

M. phœa, *Gottsch.*Hab.: Rockhampton.—*F. v. M.*

PTYCHOLEJEUNEA.

P. Stephensoniana ? (*Mitten.*)Hab.: Johnstone River.—*Christie Palmerston.*

PYCNOLEJEUNEA.

P. longidens, *Steph.*Hab.: Port Denison.—*Shaw.*LEPIDOZIA, *Nees.***L. capilligera**, *Lindl.*Hab.: Brisbane.—*C. J. Wild.***L. procera**, *Mitt.*Hab.: Cooktown.—*A. Rose.*MASTIGOBRYUM, *Nees.***M. novæ-hollandiæ**, *Nees.*

Hab.: Brisbane.

MARCHANTIA, *Linn.***M. tubularis**, *Nees.*Hab.: Brisbane.—*C. J. Wild.*PLAGIOCHILA, *Nees. et Mont.***P. Dicksoni**, *Hook. et Tayl.*

Hab.: Near Brisbane.

P. Mittenii, *Steph.*

Hab.: Freshwater Creek, Trinity Bay.

P. Balleyana, *Steph.* (n. sp.)

Hab.: Palm Camp, Bellenden-Ker, 4,000 ft.

P. pendula, *Hampe.*

Hab.

P. arbuscula, *L. et L.*

Hab.: Whelanian Pools, Bellenden-Ker.

P. flexuosa, *Steph.*

Hab.: Palm Camp, Bellenden-Ker, 4,000 ft.

P. Teysmanni, *Lac.*

Hab.: Bellenden-Ker, at 2,000 to 4,000 ft.

P. Brotheri, *Steph.*

Hab.

P. fasciculata, *Ldbg.*

Hab.: Rockingham Bay, *F. v M.*; Bellenden-Ker, *W. A. Sayer.*

PORELLA, Dill.**P. Cranfordi**, *Steph.*

Hab.: Toowoomba, *C. H. Hartmann*; Brisbane.

P. Stangeri, *Ldbg.*

Hab.: Brisbane.

RADULA, Dum.**R. javanica**, *Gottsch.*

Hab.: Trinity Bay, *W. A. Sayer*; Tringilburra Creek, Freshwater Creek, and Mulgrave River.

RICCIA, Mich.**R. cartilaginea**, *Steph.* (n. sp.)

Hab.: Milton.—*J. G. Cribb.*

R. vesiculosa, *C. et P.*

Hab.: Bundaberg.—*J. Keys.*

STEETZIA, Lehmann.

Fronds linear, more or less dichotomously branched, with a midrib. Inflorescence dioecious. Involucre at first terminal, dorsal by the subsequent elongation of the frond, seated on the midrib, cup-shaped, torn. Perianth tubular; mouth toothed. Calyptra as long, torn at the apex. Capsule on a slender fruit-stalk, ovoid; elaters free, with 2 fibres. Antheridia dorsal, on the midrib, covered by minute fimbriated leaves.—*N. Z. Fl.* 541.

S. Lyellii, *Nees.*

Hab.: Brisbane.—*C. J. Wild.*

SYMPHYOGYNA, Mont. et Nees.

Fronds membranous, linear, dichotomously or flabellately branched, stalked, arising from a creeping rhizome, midrib stout. Inflorescence monoecious or dioecious. Fruit from the nerves, usually at the forks. Involucre a toothed scale. Perianth none. Calyptra smooth, exserted, coriaceous, fimbriated at the apex by abortive pistillidia. Capsule on a slender fruit-stalk, 4-valved; valves often cohering by their apices; elaters with 2 spiral fibres. Antheridia in the midrib; perigonial leaves imbricate, tumid, incised, membranous.—*Hook.*, *N. Z. Fl.* 541.

S. irregularis, *Steph.* (n. sp.)

Hab.: Palm Camp, Bellenden-Ker, 4,000 ft.

SCHISTOCHEILA.

S. cristata, *Steph.*

Hab.: Summit of Bellenden-Ker, 5,000 ft.

S. Brotheri, *Steph.* (n. sp.)

Hab.: Freshwater Creek, Trinity Bay.

TRICHOCOLEA, Nees.

Stems erect or inclined, tufted, much branched, very soft, white and woolly in appearance. Leaves incubous and distichous, but clothing the stem, deeply palmately divided, the lobes lacinated. Stipules present. Fruit in the forks of branches. Involucral leaves many, connate into a hairy tube, which is adnate with the calyptra, coriaceous; mouth truncate. Perianth none. Capsule oblong, on a slender fruit-stalk; elaters with 2 spiral fibres. Antheridia in the axils of leaves on the upper side of the stem.—*Hook.*, N. Z. Fl.

T. pluma, Nees.

Hab.: Palm Camp, Bellenden-Ker, 4,000 ft.

Order CHARACEÆ.

NITELLA, Agardh.

N. Sonderi, *A. Br.*, Otto Nordstedt's De Alg. et Char. 1889, pp. 8, 24. Only 2 in. high. Terminal segments of the leaves towards the end getting thinner; the mucro 0.035 mm. thick and 0.075-0.1 mm. long. The nucleus of the fruit 0.20-0.22 mm. long and 0.18-0.20 mm. wide. The membrane furnished with the common little acuminate warts, or with warts a little broader and thicker on the base as in *N. Gunnii*, *L.*

Hab.: Gulf of Carpentaria.—*O. Nordst.*, l.c.

N. hyalina (*DC.*) *Kütz.*, Otto Nordstedt's De Alg. et Char. 1889, pp. 12, 28. The smaller intermediate leaves partly dichotomous. Verticilles 10 mm. in diameter; nucleus of the fruit 0.31-0.33 long and 0.3 mm. wide, with 8 pretty sharp edges. Antheridia 0.36 in diameter. Membrane very minutely granulated.

Hab.: Rockhampton, *Watson*; Burketown, Gulf of Carpentaria, 1886, *Dr. Thos. L. Bancroft*; Flinders River, *E. Palmer*.—*Otto Nordst.*, l.c.

N. h. var. brachyactis.—*O. Nordst.*, l.c.

Hab.: Roper River.—*O. Nordst.*, l.c., p. 12.

A. gelatinosa, *A. Br.*, Otto Nordstedt's De Alg. et Char. 1889, p. 13. Membrane reticulated, meshes circ. 8-16 μ in diameter; sometimes arranged in lines.

Hab.: Johnstone River.—*Dr. Thos. L. Bancroft*.

N. pseudoflabellata, *A. Br.*, Otto Nordstedt's De Alg. et Char. 1889, p. 24. The inner membrane of the nucleus of the fruit very closely and minutely granulato-punctated. Over it there lies another

lamel which is a little spongy, but covered also with small pointed warts standing a little more closely than in *N. Sonderi* and a little smaller too (c. $1\frac{1}{2}$ -8 μ).

Hab.: Endeavour River, W. Persieh.—*Otto Nordst., l.c.*

***N. polyglochis*, A. Br. f.**, *Otto Nordst. De Alg. et Char* 1889, p. 27. At least some inches high. Stalks to $\frac{3}{4}$ -mm. thick. The sterile leaves 1 in. long, the fertile ones a-half shorter; segments of the first partition c. 4, of the second 3, of the third 2. The undermost cellule of the terminal segment 20-75 μ thick and 75-150 μ long. Nucleus of the fruit 0.25 mm. long and 0.225 mm. wide; membrane delicately fossiforme, reticulated with uneven beams.

Hab.: Endeavour River. W. Persieh.—*Otto Nordst., l.c.*

***N. tasmanica* (F. v. M.) A. Br.**, *Otto Nordst. De Alg. et Char* 1889, p. 29. Much like *N. gelatinosa*, but the terminal segments of the leaves are acuminate.

Hab.: Trinity Bay, Sayer; Johnstone River, Dr. Thos. L. Bancroft.

CHARA, Linn.

C. gymnopitys*, A. Br.; var. *æquistriata, *Otto Nordstedt's De Alg. et Char* 1889, p. 33. Tubules of the cortex of equal width, the secondary ones in the crosscut not much more prominent than the primary ones.

Hab.: Near Brisbane.—*F. M. Bailey*.

C. g. var. æquistriata*, var. *polyphylla, *Otto Nordstedt, l.c., p. 33*.

Hab.: Mount Perry.—*J. Keys*.

C. g. var. tylacantha, *Otto Nordst. De Alg. et Char* 1889, p. 34. Stalk $\frac{1}{2}$ -mm. thick, sparingly covered with very short pointed prickles; prickle 0.125 mm. long. Leaves in a whorl 8-10, each 10-15 mm. long. The secondary cortical tubules of the stalk narrower and less prominent than the primary ones, joined with horizontal or oblique walls; very rarely 2 intermediate tubules. Folioles 0.075-0.125 mm. thick, 2-3 times longer than the sporangia. Nucleus only 0.33-35 mm. long and 0.25 mm. thick.

Hab.: Ithaca Creek, H. Tryon; Gulf of Carpentaria, Dr. Thos. L. Bancroft.

***C. leptosperma*, A. Br.; var. (?)**, *Otto Nordstedt's De Alg. et Char* 1889. Stalk $\frac{1}{2}$ -mm. thick. Warts semiglobose or nearly globose, prominent, 0.075-0.1 mm. Stipular cellules as thick, to 0.125 mm. long, often semiglobose, somewhat upwards directed. Of an under line of the stipular wreath nothing can be seen, but sometimes a little but not prominent cell. Leaves 8-9, corticated ones (of equal length) 4-5, of which 3-4 are fertiles; upper uncorticated ones 3-5, the uppermost subacuminate. Folioles only on the corticated joints, subacuminate. On the fertile joints there are 4 folioles, the

2 anterior ones longer than the lateral ones, all shorter than the sporangia, 0.1 mm. thick, the posterior ones undeveloped, or only warts.

Hab.: Mitchell River.—*E. Palmer*.

C. gymnopus, *A. Br.*; **var. ceylonica** (*Klein*) *A. Br.*, *Otto Nordst. De Alg. et Char.* 1889. Sporangia 1.1-1.2 mm. long, 0.54-0.65 mm. thick. Nucleus 0.65-0.67 mm. long, 0.24 mm. thick.

Hab.: Mitchell River.—*E. Palmer*.

ORDER LICHENES.

Many of the additional species here recorded are from J. F. Shirley's Monograph of Queensland Lichens:—

OBRYZUM, Wallroth.

Thallus foliaceous of many leafy incised lobes, grey or brownish. Apothecia very small, angiocarpous, immersed in thalline warts, with punctated spores. Spores boat-shaped, 2-cellular, 6 to 8 in each ascus. Gonidia moniliform.

O. myriopus, *Rev. F. R. M. Wilson*.

Hab.: On rocks, Hill End, Brisbane.—*J. F. Shirley*.

COLLEMA, Ach.

C. nigrescens, *Huds.*

Hab.: On bark, Cabbage-tree Creek.

LEPTOGIUM, Ach.

L. marginellum, *Sw.*

Hab.: On bark, Sankey's Scrub.

L. byssinum, *Hoffm.*

Hab.: Queensland.—*F. v. M.* in *Fragm. xi. Suppl.* 115.

CALICIUM, Ach.

C. curtum, *Borr.*

Hab.: Bundaberg.

SPHÆROPHORON, Pers.

S. compressum, **var. candidum**, *J. M.*

Hab.: Bellenden-Ker.

PELTIGERA.

P. polydactyla, **var. conjungens**, *J. M.*

Hab.: Toowoomba.

CLADONIA, Hoffm.

C. fimbriata, **var. tenella**, *J. M.*

Hab.: Main Range.

C. delicata, Flk.

Hab. : North Pine River, on decaying logs.

C. squamulosa, J. M.

Hab. : Main Range, on old logs.

C. elegantula, J. M.

Hab. : Queensland, by *Krempelhuber*.

USNEA, Dill.

U. cornuta, Flot.

Hab. : Near Brisbane.

U. florida, Linn.

Hab. : Main Range.

RAMALINA, Ach.

R. intermedia, Del.

Hab. : On bark, Brisbane River.

R. inflata, Hook. et Tayl.

Hab. : Toowoomba.

R. i. var. gracilis, J. M.

Hab. : Toowoomba.

R. fraxinea, var. tæinæformis, Ach.

Hab. : Bundaberg, on small branches.

R. farinacea, var. squarrosa, J. M.

Hab. : Rockhampton.

STICTINA, Nyl.

S. subtomentella, C. K.

Hab. : Mount Mistake.

S. cyphellulata, J. M.

Hab. : Bellenden-Ker.

S. impressula, J. M.

Hab. : Bellenden-Ker.

S. fragillima, var. linearis, J. M.

Hab. : Bellenden-Ker.

STICTA, Ach.

S. Freycinetii, Del.

Hab. : Main Range.

S. physciospora, Nyl.

Hab. : Hinchinbrook Island.

S. Karstenii, J. M.; var. linearis, J. M.

Hab. : Bellenden-Ker.

S. aurata, var. microphylla, J. M.

Hab. : Toowoomba.

RICASOLIA, De Not.

R. patinifera, J. M.

Hab.

PARMELIA, Ach.

P. olivacea, Linn.

Hab. : Mount Perry and Brisbane River.

P. tillacea, var. stenophylla, J. M.

Hab.

P. t. var. sulphurea, J. M.

Hab. : On bark, Toowoomba.

P. conspersa, var. exasperata, J. M.

Hab. : Toowoomba.

P. tenuirima, var. corallina, J. M.

Hab. : Toowoomba.

P. gracilis, J. M.

Hab. : Daintree River.

P. hypoxantha, var. major, J. M.

Hab. : Mueller River.

P. limbata, var. endococcinea, J. M.

Hab. : Russell River.

PHYSCIA, Nyl.

P. barbifera, Nyl.

Reported by Dr. Stirton from Queensland.

P. obesa, Per.; var. cæsiocrocata, Tuck.

Hab. : Rocks, Brisbane River.

P. adglutinata, Flk.

Hab. : Bundaberg.

P. speciosa, var. angustilobia, C. K.

Hab. : Mount Mistake.

P. glauco-virescens, Nyl.

Hab. : Mount Perry and Brisbane River.

P. chrysophthalma, var. leucoblephara, J. M.

Hab.

P. c. var. Sieberianus, Lemx.

Hab. : Toowoomba.

PYXINE, Fr.

P. picta, Tuck.

Hab. : Brisbane and Bundaberg, on rocks.

PSOROMA, Fries.

P. cæslum, J. M.

Hab. : Cunningham's Gap.

PANNARIA.

P. rubiginosa, Del.; var.

Hab.: Rocks, Brisbane River.

P. fulvescens, Mont.

Hab.: Mount Perry.

P. brisbanensis, C. K.

Hab.: Hill End, Brisbane.

P. sordida, C. K.

Hab.: Tambourine Mountains.

LECANORA, Nyl.

L. vitellina, Ach.

Hab.: On old fences, Moggill.

L. exigua, Ach.

Hab.: Wolston Scrub.

L. thiomela, Nyl.

Hab.: Helidon, on rocks.

CALLOPISMA, Not.

Thallus uniform, crustaceous, not squamulose or foliaceous, grey or yellow. Apothecia scattered, usually yellow or orange. Spores simple or polari-bilocular.

C. cinnabarinum, Ach.

Hab.: On rocks, Helidon, Ipswich, Rosewood.

PERTUSARIA, DC.

P. leiotera, J. M.

Hab.: Rockhampton.

P. leioplaca, Ach.

Hab.: Common.

LECIDEA, Ach.

L. phæocarpa, C. K.

Hab.: Sankey's Scrub.

L. leioplaca, J. M.

Hab.: Rockhampton.

L. reniformis, J. F. Shir.

Hab.: On rocks, Helidon.

L. inflexa, C. K.

Hab.: Rosewood.

L. brisbanensis, C. K.

Hab.: Sankey's Scrub.

L. incompta, var. spissa, J. F. Shir.

Hab.: Bundaberg.

- L. effusa**, *Sm.*
Hab. : Wolston.
- L. atro-alba**, *Ach.*
Hab. : Reported in *Fragm. Phyt.* vol. xi.
- L. disciformis**, var. **cinereo-ferruginea**, *C. K.*
Hab. : Three-mile Scrub.
- L. clausa**, *C. K.*
Hab. : On rocks, Helidon.
- L. geographica**, var. **cyclopica**, *Nyl.*
Hab. : Mount Perry.
- L. aspidula**, *Krph.*
Hab. : Rockhampton.
- L. russula**, *Ach.*
Hab. : Brisbane.
- L. inflexa**, *C. K.*
Hab. : Rosewood.
- L. subproposita**, *J. M.*
Hab. : Toowoomba.
- L. breviuscula**, *Nyl.*
Hab. : Toowoomba.
- L. leucoxantha**, *Mass.*
Hab. : Rosewood, Indooroopilly.
- L. parabola**, var. **subvulpina**, *J. M.*
Hab. : Trinity Bay.
- L. coccocarpiae**, *J. M.*
Hab. : Russell River, on *Coccocarpia aurantiaca*.
- L. (Bilimbia) leucoblephara**, *Nyl.*
Hab. : Common, on rocks, bark, and leaves.

OCELLULARIA, J. M.

A sub-genus of *Thelotrema*, having hyaline transversely divided spores, with lenticular loculi.

- O. terebratula**, *Nyl.*
Hab. : Forbes Creek, North Pine River.
- O. viridi-pallens**, *J. M.*
Hab. : Trinity Bay.

PHÆOTREMA, J. M.

Spores brown, transversely divided, loculi lenticular.

- P. consimile**, *J. M.*
Hab. : Russell River.

THELOTREMA, Ach.

Spores hyaline, murally divided.

T. laceratulum, J. M.

Hab. : Trinity Bay.

T. australlense, J. M.

Hab. : Tweed River.

ASCIDIUM.

A. monosporum, C. K.

Hab. : Three-mile Scrub and Helidon.

LEPTOTREMA, J. M.

Spores brown, parenchymatous.

L. albo-coronata, C. K.

Hab. : Sankey's Scrub.

L. integrum, J. M.

Hab. : Russell River.

GRAPHIS, Ach.

G. mucronata, Stirton.

Hab. : On bark, Brisbane River.

G. Argopholis, C. K.

Hab. : Tambourine Mountain.

GRAPHINA, J. M.

Spores hyaline as in *Graphis*, but with the loculi parenchymatous.

G. saxicola, J. M.

Hab. : Thursday Island.

G. subtartarea, J. M.

Hab. : Trinity Bay.

G. palmicola, J. M.

Hab. : On Palms, Trinity Bay.

HELMINTHOCARPON, J. M.

Apothecia scattered, paraphyses intricately convexo-ramose; spores hyaline.

H. Lojkanum, J. M.

Hab. : Toowoomba.

ARTHONIA, Ach.

A. Ricasoliæ, J. M.

Hab. : Toowoomba.

A. vulgaris, var. astroidea, C. K.

Hab. : Hill End, Brisbane, on *Avicennia officinalis*.

A. cinereo-argentea, C. K.

Hab. : On bark of *Ficus laccifera*, Bot. Garden.

GLYPHIS, Ach.**G. verrucosa, C. K.**

Hab. : Sankey's Scrub.

G. cyclospora, J. M.

Hab. : Trinity Bay.

MELANOTHECA, Fée.

Fruit composite, formed of many perithecia, which are straight in vertical section, each ending in a straight and erect ostium ; spores brown, transversely divided, loculi lenticular.

M. rubescens, C. K.

Hab. : Three-mile Scrub.

M. Achariana, Fée.

Hab. : Sankey's Scrub.

TOMASELLIA, Mass.

Fruit as in *Melanotheca*, but spores hyaline, transversely divided, loculi not lenticular.

T. dispora, J. M.

Hab. : Thursday Island.

PORINA, Ach.**P. bacillifera, J. M.**

Hab. : Daintree River.

P. præstantior, var. nana, Shirley.

Hab. : Maroochie.

P. persimilis, J. M.

Hab. : Trinity Bay.

P. phæophthalma, Shirley.

Hab. : Rosewood.

CLATHROPORINA, J. M.

Differs from *Porina* in having murally divided spores.

C. endochrysa, Mont.

Hab. : Three-mile Scrub.

ARTHOPYRENIA, J. M.**A. picea, J. F. Shirley.**

Hab. : Caboolture.

PYRENULA, Fée.

Fruit simple, formed of a single perithecium, 1-ostiolate; spores brown, transversely divided, loculi lenticular; paraphyses sparingly convexo-ramose.

P. finitima, J. M.

Hab.: Toowoomba.

P. segregata, J. M.

Hab.: Trinity Bay.

P. immersa, J. M.

Hab.: Near Toowoomba.

ANTHRACOTHECIUM, J. M.

Fruit as in *Pyrenula*; but spores brown, parenchymatous; paraphyses capillary and connected.

A. oligosporum, J. M.

Hab.: Burdekin River.

Order FUNGI.

SUBORDER HYMENOMYCETES.—TRIBE AGARICINI.

SUBGENUS AMANITA.

AGARICUS, Linn.

A. vernus, Bull., Fries Hym. Eur. 18. Spring *Amanita*; poisonous.

Hab.: Oxley Creek.—*C. W. De Vis.*

A. murinus, Oke. et Mass. (n. sp.), Grev. xviii. 1. Mouse-coloured *Amanita*.

Hab.: Eight-mile Plains.—*J. P. Bickard.*

SUBGENUS AMANITOPSIS.

A. farinaceus, Oke. et Mass. (n. sp.), Grev. xviii. 1. Mealy *Amanitopsis*.

Hab.: Oxley Creek, *C. W. De Vis*; and Brisbane.

SUBGENUS LEPIOTA.

A. mastoideus, Fries, Hym. Eur. 30. The breast-like *Lepiota*.

Hab.: Albert Park.

A. naucinus, Fries, Hym. Eur. 34. The Nut-tree *Lepiota*.

Hab.: Found on a heavily manured border, Brisbane Botanic Garden.

A. cretaceus, Bull. Chalky *Lepiota*.

Hab.: Albert Park.

H

A. fimetarius, *Oke. et Mass.* (n. sp.), Grev. xviii. 1.

Hab.: Found growing on cow-dung, Cabbage-tree Creek.—*Field Nat. Exc.*

A. ochrophyllus, *Cke. et Mass.* (n. sp.), Grev. xviii. 2. Gouty-stemmed *Lepiota*.

Hab.: Eight-mile Plain, *J. P. Richard*; and a few other localities near Brisbane, about April, 1889.

SUBGENUS SCHULZERIA.

(After Cap. St. Schulzer von Muggenberg, a skilful mycologist.)

A. revocans, *Cke. et Mass.* (n. sp.), Grev. xviii. 2.

Hab.: Museum Garden, Brisbane.

SUBGENUS ARMILLARIA.

A. fulgens, *Cke. et Mass.* (n. sp.), Grev. xviii. 2. Glossy *Armillaria*.

Hab.: Oxley Creek.—*C. W. De Vis*.

SUBGENUS TRICHOLOMA.

A. resplendens, *Fries*, Hym. Eur. 49. Brightly shining *Tricholoma*.

Hab.: Eight-mile Plain.—*J. P. Richard*.

SUBGENUS CLITOCYBE.

A. cerussatus, *Fries*, Hym. Eur. 86. White-lead coloured *Clitocybe*; esculent.

Hab.: Albert Park.

A. subsplendens, *Cke. et Mass.* (n. sp.), Grev. xviii. 2.

Hab.: Near Brisbane.—*Wm. Soutter*.

SUBGENUS COLLYBIA.

A. radicatus, *Relh.*, Cantab. p. 529. Rooting *Collybia*.

Hab.: Near Brisbane.—*H. Hurst*.

A. fusipes, *Bull.*, Champ. t. 106. Spindle-stemmed *Collybia*; esculent.

Hab.: Eight-mile Plain.—*J. P. Richard*.

A. tuberosus, *Bull.*, Champ. t. 256. Sometimes springing from a sclerotoid tuber.

Hab.: Found growing on a piece of old fungus at Goodna. In Europe, Dr. Cooke says it is at times met with growing on *Russula*.

SUBGENUS MYCENA.

A. tenerrimus, *Berk.*, Outl. t. 6, f. 6. A small very tender *Mycena*.

Hab.: On fern-stems, Bowen Park,

SUBGENUS LACCARIA.

A. canaliculata, *Oke. et Mass.* (n. sp.), Grev. xviii. 2. Channelled or fluted *Laccaria*.

Hab.: Under *Casuarinas*, Eight-mile Plain.—*J. P. Bichard*.

SUBGENUS PLEUROTUS.

A. diversipes, *Berk.*, Fl. Tasm. t. 181, f. 4.

Hab.: Growing at the edge of a grass walk, Bowen Park.

A. sulciceps, *Oke. et Mass.* (n. sp.), Grev. xviii. 3.

Hab.: At the base of paling fence, Brisbane.

SUBGENUS VOLVARIA.

(Furnished with a *volva*, or wrapper.)

Spores regular in shape, oval or pip-shaped, pink or salmon colour; veil universal, forming a perfect *volva*, distinct from the cuticle of pileus; stem distinct from the hymenophore; gills free, rounded behind, at first white, then pink, soft, liquescent. None known to be edible.

A. parvulus, *Weinm.*, Ross. 238. Small *Volvaria*.

Hab.: Near Cleveland.—*S. W. Cameron*.

SUBGENUS CLITOPILUS.

(Referring to the sloping cap.)

Stem fleshy or fibrous, expanded upwards into the pileus, the margin of which is at first involute. Hymenophore continuous with the stem, gills equally attenuated behind, and somewhat decurrent, not seceding or sinuate. Some edible.

A. cancrinus, *Fries*, Hym. Eur. 199. Crab *Clitopilus*.

Hab.: Brisbane Botanic Garden.

SUBGENUS FLAMMULA.

A. sapineus, var. **terrestris**, *Oke.* Terrestrial Fir-tree *Flammula*.

Hab.: Eight-mile Plain.—*J. P. Bichard*.

A. purpurea-nitens, *Oke. et Mass.* (n. sp.) Clammy bronze *Flammula*.

Hab.: At the stump of a tree, South Peak, Bellenden-Ker.

A. avellanus, *Oke. et Mass.* (n. sp.), Grev. xviii. 3. Nut-brown *Flammula*.

Hab.: A rather common species on sandy land about Brisbane.

SUBGENUS NAUCORIA.

A. escharoides, *Fries*, Hym. Eur. 264. Scabby *Naucoria*.

Hab.: Eight-mile Plain.—*J. P. Bichard*.

SUBGENUS TUBARIA.

(From *tuba*, a trumpet.)

Stem subcartilaginous, fistulose. Pileus rather membranaceous, often clad with the floccose universal veil. Gills subdecurrent, broadest behind, triangular.

A. furfuraceus, *Pers.*, Syn. 454. Scurfy *Tubaria*.

Hab.: Brisbane Botanic Garden.

SUBGENUS HYPHOLOMA.

(Referring to the web-like fringe.)

Hymenophore continuous with the stem; veil interwoven in a web, adhering in fragments to the margin of the pileus. Gills adnate or sinuate. Spores brownish-purple, sometimes intense purple, almost black.

Found generally on stumps. Often gregarious and not edible.

A. adustus, *Cke. et Mass.* (n. sp.), Grev. xviii. 3. When old the plant appears scorched.

Hab.: At the bottom of a wall, Dr. Bancroft's garden, Brisbane.

Dr. Cooke says it is allied to *A. lacrymabundus*.

SUBGENUS PSATHYRA.

(Plants friable, apt to fall to pieces.)

Veil none, or only universal, floccose-fibrillose. Stem rather cartilaginous, fistulose, polished, fragile. Pileus conical or campanulate, membranaceous. Margin at first straight, adpressed to the stem. Gills purplish or brownish, slender, fragile, hygrophanous.

A. fatuus, *Fries*, Hym. Eur. 308. Tasteless *Psathyra*.

Hab.: Near Brisbane.—*H. Hurst*.

A. gossypinus, *Fries*, Hym. Eur. 309. Cottony *Psathyra*.

Hab.: Oxley Creek, Brisbane River.—*D. O'Connor*.

SUBGENUS PANÆOLUS.

(All variegated: from the gills.)

Veil, when present, interwoven, sometimes wanting; stem polished, rather firm; pileus somewhat fleshy, viscid when moist, shining when dry, never striated, the margin exceeding the variegated gills; gills clouded, never becoming purple or brown; spores black, oval, smooth.

Almost all found on dung.

A. fimicola, *Fries*, Hym. Eur. 312.

Hab.: Goodna Creek, on wallaby-dung.—*Field Nat. Exc.*

A. eburneus, *Cke. et Mass.* (n. sp.), Grev. xviii. 4. Ivory *Panæolus*.

Hab.: Very frequently met with on cow-dung about Brisbane.

A. veluticeps, *Oke. et Mass.* (n. sp.), Grev. xviii. 4. Velvety-capped *Panæolus*.

Hab. : Amongst grass in a back yard in Brisbane.

COPRINUS, Fries.

C. picaceus, *Fries*, Hym. Eur. 323. Magpie *Coprinus*; pied or variegated.

Hab. : Near Brisbane.—*H. Hurst*.

C. deliquescens, *Bull.*, Camp. t. 558, f. 1. Becoming moist, deliquescent.

Hab. : Near Brisbane.—*H. Hurst*.

C. plicatilis, *Curt.*, Fl. Lond. t. 200. Folded pileus.

Hab. : Brisbane, common on garden and grass land.

BOLBITIUS, Fries.

(From the Greek *bolbitios* or *bolitos*, cow-dung.)

Hymenophore almost separate, universal veil none, partial veil in many cases obsolete; gills membranaceous, soft, dissolving, powdery with the rusty ovate spores. The species of this genus are usually met with on dung or rank earth.

B. fragilis, *Fries*, Hym. Eur. 334. Brittle *Bolbitius*.

Hab. : In a yard at the back of a house in Brisbane.

PAXILLUS, Fries.

P. Muelleri, *Berk.*, Linn. Journ. xiii. 159.

Hab. : Oxley Creek, *C. W. De Vis*; and in a garden on Wickham terrace, Brisbane.

P. (Tapinia) paradoxus, *Kalch.*, Fung. Hung. t. 16, f. 1.

Hab. : Eight-mile Plain.—*J. P. Richard*.

RUSSULA, Pers.

R. australiensis, *Oke. et Mass.* (n. sp.)

Hab. : Oxley Creek.—*C. W. De Vis*.

CANTHARELLUS, Adans.

C. (Mesopus) aureolus, *Oke. et Mass.* (n. sp.), Grev. xviii. 4. Golden *Cantharellus*.

Hab. : Goodna Creek.—*Field Nat. Exc.*

MARASMIUS, Fries.

M. urens, *Fries*, Epicr. 373. Stinging *Marasmius*; the taste stinging, acrid.

Hab. : Cleveland.—*S. W. Cameron*.

M. erythropus, *Fries*, Epicr. 378. Pallid *Marasmius*.

Hab. : Amongst grass in a back yard in Brisbane.

M. erythrocephalus. Red-headed *Marasmius*.

Hab.: On decayed leaves and rubbish, Brisbane scrubs; also Bundaberg.

M. caulicinalis, *Fries*, *Epicr.* 383. Mealy-stemmed *Marasmius*.

Hab.: On bark and leaves, Brisbane River scrubs.

M. lanaripes, *Cke. et Mass.* (n. sp.), *Grev.* xviii. 4. Woolly-stemmed *Marasmius*.

Hab.: Brisbane River scrubs.—*W. Soutter*.

LENTINUS, *Fries*.**L. fusco-purpureus**, *Kalch.*, *Grev.* viii. t. 143, f. 17. Brownish-purple *Lentinus*.

Hab.: Near Brisbane.

L. gracilentus, *Cke. et Mass.* (n. sp.) Slender *Lentinus*.

Hab.: Goodna Creek.—*Field Nat. Exc.*

LENZITES, *Fries*.**L. nivea**, *Cooke*. A snow-white.

Hab.: Bellenden-Ker, Johnstone River, and other parts of Tropical Queensland.

TRIBE POLYPOREI.

BOLETUS, *Dill*.**B. luteus**, *Linn.* in *Cooke's Brit. Fung.* Brown-yellow *Boletus*.

Hab.: Brisbane River.

B. elegans, *Schum.* in *Cooke's Brit. Fung.* Elegant! *Boletus*.

Hab.: Oxley Creek.—*C. W. De Vis*.

B. granulatus, *Linn.* in *Cooke's Brit. Fung.* Granulated *Boletus*.

Hab.: Eight-mile Plain.—*J. P. Richard*.

Considered esculent in Europe.

A very variable species, but the very glutinous pileus always the same colour, namely, a rich chestnut-brown; tubes and stem sulphur colour, tubes exuding a thin gummy juice, which soon dries in the form of sugary granules. Stem rough, scabrous, as if covered with moist sugar.—*W. G. Smith* in *Cooke's Handb. of Brit. Fung.* 251.

B. badius, *Fries*, *Epicr.* 411. Bay *Boletus*.

Hab.: Brisbane and neighbourhood.

B. sanguineus, *With.* in *Cooke's Brit. Fung.* Blood-red *Boletus*.

Hab.: Near Brisbane.

B. chrysenteron, *Fries*, *Epicr.* 415. Red-cracked *Boletus*.

Hab.: Near Brisbane.—*J. F. Bailey*.

B. aestivalis, *Fries*, *Epicr.* 422. Early *Boletus*.

Hab.: Near Brisbane.—*George Mackay*.

A very large species considered esculent in Europe.

B. luridus, *Fries*, *Epicr.* 418. *Lurid Boletus*.Hab.: Eight-mile Plain.—*J. P. Richard*.

Considered poisonous in Europe.

B. felleus, *Bull.* in *Cooke's Brit. Fung.* *Bitter Boletus*.Hab.: Eight-mile Plain.—*J. P. Richard*.**B. æneus**, *Fries*. *Brazen Boletus*.Hab.: Near Brisbane.—*J. F. Bailey*.**B. subsimilis**, *Preiss.*, *Fries Pl. Preiss.* 134.

Hab.: Stony ridges about Brisbane.

B. (Hyporhodii) lacunosus, *Cke. et Mass.* (n. sp.), *Grev.* xviii. 5. *Channel-stemmed Boletus*.Hab.: Eight-mile Plain.—*J. P. Richard*; *Oxley Creek, C. W. De Vis*.STROBILOMYCES, *Berk.***S. pallescens**, *Cke. et Mass.* (n. sp.), *Grev.* xviii. 5. *Pale-coloured Cone-fungus*.Hab.: Near Brisbane.—*George Mackay*.**S. floccopus**, *Rostk.* *Floccose or woolly Cone-fungus*.Hab.: Eight-mile Plain.—*J. P. Richard*.**S. velutipes**, *Cke. et Mass.* (n. sp.), *Grev.* xviii. 5. *Velvety-stemmed Cone-fungus*.Hab.: On wood under *Casuarina* trees, Eight-mile Plain.—*J. P. Richard*.**S. rufescens**, *Cke. et Mass.* (n. sp.), *Grev.* xviii. 5. *Reddish-coloured Cone-fungus*.Hab.: *Oxley Creek*.—*C. W. De Vis*.POLYPORUS, *Fries*.**P. (Ovina) tumulosus**, *Cooke* (n. sp.), *Grev.* xvii. 55.Hab.: *Burpengary, Dr. J. Bancroft*; and several localities near Brisbane.

According to *Dr. Bancroft*, at *Burpengary* this species is used for food by the natives. This is one of the species of fungi which form the large masses of mycelium frequently met with when breaking up forest land in the Brisbane district.

P. (Spongiosa) biennis, *Bull.*, *Fries Hym. Eur.* 529.Hab.: *Goodna Creek*.—*Field Nat. Exc.***P. tubulæformis**, *Berk.*Hab.: Eight-mile Plain.—*J. P. Richard*.**P. (Lignescentes) plebeius**, *Berk.*, *Fl. N. Zeal.* ii. 179. *A resupinate form*.Hab.: Off fence, *Botanic Garden*.FOMES, *Fries*.**F. (Mesopodes) pullatus**, *Berk.* in *Herb.* 2340, *Grev.* xiii. 117.

Hab.: Rather plentiful, and the specimens large during 1889 about Brisbane; often at the stumps of trees.—*Field Nat. Exc.*

F. (Lævigati) annosus, *Fries*, Hym. Eur. 564. A resupinate form.

Hab. : Top of South Peak, Bellenden-Ker, forming large patches on old logs.

F. omalopilus, *Mont.* Cub. 423 = *CARNEO-FULVUS*, *Berk.*

Hab. : Bellenden-Ker.

POLYSTICTUS, *Fries.*

P. (Discipedes) rasipes, *Berk.*, Linn. Journ. xvi. 46.

Hab. : Reported from Queensland by Dr. Cooke.

P. (Discipedes) porphyrites, *Berk.*, Hook. Journ. 1865, 196.

Hab. : Reported from Queensland by Dr. Cooke.

P. (Stuposi) pergamenus, *Fries*, *Epicr.* 480.

Hab. : Bunya Mountains.

P. (Prolificantes) laceratus, *Berk.*, Ann. Nat. Hist. 1839, 392.

Hab. : Goodna Creek.

P. (Coriacei) vernicifluus, *Berk.*, Fl. Tasm. ii. 254.

Hab. : On wet log in Goodna Creek Scrub.—*Field Nat. Exc.*

P. (Coriacei) obstinatus, *Cke.*, Grev. xii. 17. (*Trametes obstinatus*, *Cke.*)

Hab. : Endeavour River.

SOLENIA, *Pers.*

Cups tubular, cylindrical ; mouth narrowed, inferior, or turned downwards.—*Cooke*, British Fungi i. 329.

S. candida, *Hoffm.*, Dent. Fl. t. 8, f. 1. White *Solenia*.

Hab. : At the bottom of palings of a fence in Brisbane ; in Europe it is often found on rotten Beech.

TRIBE HYDNEI.

HYDNUM, *Fries.*

H. lævigatum, *Fries*, Hym. Eur. 599. Smooth *Hydnum*.

Hab. : Eight-mile Plain.—*J. P. Richard.*

H. mucidum, *Fries.* Hoary *Hydnum*.

Hab. : Harvey's Creek.

IRPEX, *Fries.*

I. cervinus, *Berk.* Tawny *Irpex*.

Hab. : Mulgrave River.

GRANDINIA, *Fries.*

G. glauca, *Cooke* (n. sp.), Grev. xvii. 55.

Hab. : On dead wood, Enoggera Gap.—*Field Nat. Exc.*

TRIBE THELEPHOREI.

PENIOPHORA, Cooke.

P. papyrina (*Mont.*), *Oke.* in *Grev.* viii. 20.

Hab.: Reported from Queensland by Dr. Cooke in letter.

CORTICIUM, Fries.

C. reticulatum, *B. et Br.*, Ceylon Fungi.

Hab.: On wood, Tringilburra Creek.

LACHNOCLADIUM, Lév.

Coriaceous, subcoriaceous, or subcartilaginous, branching fungus; tomentose or setulose, the branches compressed or terete.—*Sacc.*, *Syll.* Fung. vi. 738.

L. rameale, *Berk.*Hab.: Brisbane scrubs, *Field Nat. Exc.*; Mulgrave River.**L. semivestitum**, *Berk.*Hab.: Goodna Creek.—*Field Nat. Exc.*

ALEURODISCUS.

A. albidus, *Mass.* (n. sp.), *Grev.* xvii. 55. Pure white *Aleurodiscus*.Hab.: On dead twigs, Wolston Scrub, Brisbane River.—*Field Nat. Exc.*

TRIBE TREMELLINI.

TREMELLA, Fries.

T. fuciformis, *Berk.*Hab.: On logs in damp localities, Brisbane scrubs.—*Field Nat. Exc.*

SUBORDER GASTEROMYCETES.

TRIBE PHALLOIDEI.

LYSURUS, Fries.

(From the Greek *lyo*, loose, and *oura*, tail, alluding to the free segments of the head.)

Receptacle stipitate, divided upwards in vertical lobes, which are free at the apex, scarcely distinct from the stipes. Sporiferous pulp covering the external part of the lobes.—*Sacc.*, *Syll.* Fung. vii. 22.

L. australiensis, *Oke. et Mass.* (n. sp.), *Grev.* xviii. 6.

Hab.: Oxley Creek, Dr. O'Connor; Cleveland, S. W. Cameron.

MUTINUS, Fries.

(Pointless *Phallus*.)

Receptacle stipitiform without a pileus, directly covered on the upper side with a sporiferous pulp, the under side without spores. The

sporiferous part as large as the stipes, or more solid or more dilated.—*Sacc.*, Syll. Fung. vii. 12.

M. sulcatus, *Oke. et Mass.* (n. sp.), Grev. xvii. 69.

Hab. : On garden soil near Brisbane.—*G. Hardy*.

ITHYPHALLUS, Fries.

(From the Greek : straight phallus.)

Receptaculum consisting of a hollow stalk and pileus, which is reticulate or tuberculate-rugose. Stipes without an indusium.—*Sacc.*, Syll. Fung. vii. 8.

I. impudicus, *Fries.* The common European "Stinkhorn."

Hab. : Tringilburra Creek.

I. novæ-hollandiæ (*Corda*), *Ed. Fischer.* (*Phallus libidinosus*, Cayley, and *Cynophallus Caleyi*, Berk.)

Hab. : Enoggera Creek, on a stony ridge.—*Field Nat. Exc.*

CLATHRUS, Mich.

C. (Laternea) triscapus (*Turpin*), *Fries*, Syst. Myc. ii. 287. (*Laternea triscapa*, Turp.)

Hab. : On débris, Goodna Creek.—*Field Nat. Exc.*

TRIBE LYCOPERDACEI.

LYCOPERDON, Tournef.

L. substellatum, *Berk.*

Hab. : On dung, Kedron Brook.—*Field Nat. Exc.*

SCLERODERMA, Fries.

S. australe, *Mass.* (n. sp.), Grev. xviii. 26.

Hab. : Endeavour River, on soil.—*Persietz*.

TRIBE NIDULARIACEI.

CYATHUS, Hall.

C. ambiguus, *Tul.*

Hab. : On garden soil, Wickham terrace.—*Dr. P. Bancroft*.

SUBORDER MYXOMYCETES.—TRIBE CALCAREÆ.

FULIGO, Hall.

(Plant when old appearing like a mass of soot.)

Of various-coloured shapeless masses, approaching *Æthelium* in its tender venous peridia. The central tunica containing the capillitium and spores; the external tunica not always forming a skin provided with calcareous granules, but on the under side joined to the pellicula of the hypothallus. Capillitium much developed,

provided with not very numerous granules, which are calcareous and irregularly rugulose. Spores globose.—*Sacc.*, Syll. Fung. vii. 353.

P. varians, *Sow.*

Hab.: At times very abundant in Brisbane in places where rubbish has been buried.

TILMADOCHÉ, Fries.

Peridia stipitate, bursting irregularly or in a reticulate manner, membrane simple, very tender, calcareous. The tubes of the capillitium broad at the base, simple, the upper ones in a sharp angle, repeatedly furcate, the last lateral branches of the upper peridium scarcely adnate, regularly reticulate, only sometimes with foetid calcareous granules. Calcareous granules small, fusoid, not at all numerous. No columella.—*Sacc.*, Syll. Fung. viii. 359.

T. rufipes, *Berk.*

Hab.: On moss, Pimpama.—*Field Nat. Exc.*

DIDYMIUM, Schrad.

D. australe, *Mass.* (n. sp.), Grev. xvii. 7.

Hab.: On old *Auricularia*, Brisbane scrubs.—*Field Nat. Exc.*

D. complanatum, *Fries.*

Hab.: Brisbane, on garden weeds.

SUBORDER ÆCIDIOMYCETES.

UROMYCES, Lév.

U. Diploglottidis, *Cke. et Mass.* (n. sp.), Grev. xvii. 55.

Hab.: On leaflets of Native Tamarind.—*Field Nat. Exc.*

U. phyllodiæ, *Cke. et Mass.* (n. sp.), Grev. xvii. 70.

Hab.: On leaves (phyllodia) of Wattles, Brisbane district.—*Field Nat. Exc.*

TRIBE USTILAGINEI.

CEREBELLA, Cesati.

C. andropogonis, *Les.*

Hab.: On awns of *Heteropogon contortus*, Gladstone.—*C. T. Musson.*

C. paspali, var., *Cke. et Mass.* (n. form.)

Hab.: On *Anthistiria ciliata*, Gladstone.—*C. T. Musson.*

SUBORDER DISCOMYCETES.—TRIBE HELVELLACEI.

PEZIZA, Dill.

P. (Trichoscypha) Hindsii, *Berk.* in Hook. Journ. i. 456.

Hab.: Near Cairns.

P. (Sarcoscypha) melastoma, *Sow.*

Hab.: Goodna Creek Scrub.—*Field Nat. Exc.*

P. (Dasyscypha) lachnoderma, Berk.

Hab.: Mount Mistake.

P. (Cochleatæ) cochleata, Bull.Hab.: Brisbane.—*G. Watkins.***CHLOROSPLENIUM, Tul.****C. æruginosum, Tul.**

Cooke, Brit. Fung. 709, says, "is the green mycelioid state of *Helotium æruginosum*, Fries. It is this mycelium which stains the wood known as 'green oak,' and used in the manufacture of 'Tunbridge ware.'"

SUBORDER PYRENOAMYCETES.—TRIBE HYPOCREACEÆ.

SPHEROSTILBE, Tul.**S. hypocreoides, K. et C.**Hab.: On bark, Brisbane scrubs.—*Field Nat. Exc.*

TRIBE XYLARIAACEÆ.

XYLARIA, Schr.**X. fistulosa (Lév.), Fries, Nov. Symb.**Hab.: Mulgrave River; also met with in Java, *Saccardo.***X. dealbata, Berk.**

Hab.: Bellenden-Ker.

HYPOXYLON, Fries.**H. punctulatum, B. et R.**Hab.: On wood, Wolston scrub, Brisbane River.—*Field Nat. Exc.***H. (Placoxylon) ellipticum, Cke. et Mass. (n. sp.), Grev. xvii. 70.**Hab.: On wood, Burpengary.—*Dr. J. Bancroft.***H. marginatum, Berk.**Hab.: On wood, Brisbane scrubs.—*Field Nat. Exc.***STRUMELLA, Sacc.**(From *struma*, a wen.)

Sporodochium verruciform, composed of variously branched hyphæ and of ovoid polymorphous conidia variously connected.—*Sacc., Syll. Fung.* iv. 742.

S. hysterioides, Cke. et Mass. (n. sp.), Grev. xvii. 69.Hab.: Gladstone, on wood.—*C. T. Musson.*

TRIBE DOTHIDEI.

PHYLLOCHORA, Nits.**P. aspidea, B. et M.**Hab.: On *Alpinia cærulea*, Wolston Scrub, Brisbane River.—*Field Nat. Exc.*

P. catervaria, *Berk.* (So named from the confused masses it forms on the leaves.)

Hab. : On several rough-leaved Figs at the Mulgrave River.

This species infests the foliage of *Ficus oppositifolia* in Ceylon.

AILOGRAPHUM, Lib.

Perithecia minute, linear, or elliptico-linear, simple or branched, opening with a narrow longitudinal fissure; asci sacciform, ovoid-oblong.—*Cooke*, Brit. Fung. 765.

A. melioloides, *Oke. et Mass.* (n. sp.), Grev. xviii. 6.

Hab. : On trees, Pimpama.

TRIBE VALSLÆI.

VALSA, Fries.

V. decorticans, *Fries.*

Hab. : Brisbane River, on dead wood.—*Field Nat. Exc.*

SARCOXYLON, Cooke.

Stroma rather fleshy, pallid or brightly coloured, subglobose, pulvinate or depressed; perithecia submembranaceous; sporidia simple, coloured.—*Cooke*, Grev. xii. 50.

S. compunctum, *Jungh.* The upper part of the plant covered with black shining dots.

Hab. : Bellenden-Ker Range.

TRIBE SPHÆRIÆI.

CAPNODIUM, Mont.

C. australe, *M.*

Hab. : On *Cycas*, Brisbane Botanic Garden.

CAPNODIASTRUM.

C. orbiculatum, *Oke. et Mass.* (n. sp.)

Hab. : On leaves of native plants, Tringilburra Creek.

TRIBE PERISPORIÆ.

MELIOLA, Fries.

M. polytricha, *Kalch. et Cooke.*

Hab. : On leaves of *Callistemon*, Gladstone.—*C. T. Musson.*

ASTERINA, Lév.

A. epixera, *Berk. et Br.*

Hab. : On foliage of shrubs in Brisbane River scrubs.

A. platystoma, *Oke. et Mass.*, Grev. xviii. 6.

Hab. : On leaflets of *Castanospermum*, Brisbane River.—*Field Nat. Exc.*

ROSELLINA, De Not.

(After Dr. F. P. Rosellini.)

Perithecia superficial, smooth ; sporidia continuous, brown.

R. tremellæcola, *Cke. et Mass.* (n. sp.), Grev. xviii. 6.Hab.: On *Tremella fuciformis*, Brisbane River.—*Field Nat. Exc.*

TRIBE SPHÆRONEMEI.

PHOMA, Fries.**P. graminis**, *Vitt.*Hab.: On grass from Ayrshire Downs. In Belgium it infests the *Poas*.**P. cordylines**, *Thum.*Hab.: On leaves of *Crinum pedunculatum* growing in Wickham Terrace Reserve.**P. nothum**, *Berk.*, Sacc. Syl. 556.Hab.: On twigs of shrubs, Brisbane River scrubs; found on *Platanus* in England.**P. Diploglottidis**, *Cke. et Mass.* (n. sp.), Grev. xvii. 56.Hab.: On leaflets of Native Tamarind tree, Wolston Scrub, Brisbane River.—*Field Nat. Exc.***P. plagia**, *Cke. et Mass.* (n. sp.), Grev. xvii. 55.

Hab.: On leaves of Palm from Daintree River.

SEPTORIA, Fries.

Perithecia commonly seated on discoloured spots, membranaceous. Sporules rod-like or filiform, many-septate or many-nucleate, hyaline.

S. oleanderina, *Sacc.*

Hab.: On leaves of Oleanders in garden, Gregory terrace, Brisbane.

This fungus is said to infest plants of the same genus in France, Italy, and other parts of Europe.

GLEOSPORIUM, Mont.**G. lagenarium**, *Pass.*

Hab.: On Mango-fruit, Brisbane Gardens; in Europe on Cucumbers and Melons.

ASTEROMA, DC.

Perithecia minute, seated usually on radiating black fibrils. Sporules ovoid-oblong.

A. Rosæ, *Lib.*, Sacc. Syll. 2257.

Hab.: On Rose-bushes in Brisbane Botanic Garden.

SUBORDER HYPHOMYCETES.—TRIBE STILBACEI.

FUSICOLLA, Bon.

Sporodochia pulvinato-lobate or effuse, unequal, superficial, subgelatinous, pleasing coloured. Sporophora filiform, branches

continuous. Conidia growing on the points of the branchlets, cylindrical or fusoid-falcate, continuous hyaline.—*Sacc.*, Syll. Fung. iv. 664.

F. incarnata, *Oke. et Mass.* (n. sp.), Grev. xvii. 8.

Hab.: On foliage of shrubs, Brisbane River.—*Field Nat. Exc.*

TRIBE DEMATIEL.

CLADOSPORIUM, Link.

C. hypophyllum, *Fcht.*

Hab.: On a *Serjania* in Brisbane Botanic Garden. In Europe this fungus is said to affect the under side of the leaves of the common Elm (*Ulmus campestris*).

MACROSPORIUM, Fries.

Flocci obscure or delicate. Spores erect, basal, pedicellate, with at length transverse and vertical septa.—*Cooke* in Brit. Fung.

M. peponicolum, *Rabh.*

Hab.: On Pawpaw fruit received from Mackay. In several parts of Europe this fungus attacks plants of the Pumpkin family.

MYRIOCEPHALUM, Not.

M. Castanospermi, *Oke. et Mass.* (n. sp.)

Hab.: On leaflets of *Castanospermum*, Brisbane River.—*Field Nat. Exc.*

TRICHODERMA, Pers.

Peridium spurious, undeterminate. Flocci even, spores spread over the disc.—*Cooke*, Brit. Fung. 625.*

* Description omitted in Second Suppl. Syn. Queensl. Flora, p. 144.

ADDENDA.

KLEINHOVIA, Linn.

(After M. Kleinhoff, at one time director of Java Botanic Garden.)

Bracteoles small, ensiform. Sepals 5, deciduous. Petals 5, unequal, upper with longer claws, margins involute. Staminal column dilated above into a bell-shaped 5-fid cup, divisions each with 3 extrorse 2-celled anthers, cells divergent. Ovary inserted in the staminal cup, 5-lobed, 5-celled; style slender, stigma 5-fid. Capsule membranous, inflated, pyriform, loculicidally 5-valved. Seeds 1 or 2 in each cell, tubercled; albumen scanty or none; cotyledons convolute; radicle next the hilum. A tree with palminerved, ovate, acuminate, quite entire leaves, and loose cymose inflorescence.

K. Hospita, Linn. A tree with straight trunk, smooth bark, and spreading head. Leaves on petioles of about 1 in. long, cordate, ovate, subacuminate, entire, palmately 3 to 5-ribbed, smooth on both surfaces, 6 to 12 in. long by 2 to 3 in. broad. Stipules ensiform. Flowers purplish or rose-coloured. Petals 5, shorter than the lanceolate sepals. Seeds tubercled.

Hab.: Baron von Mueller writes me word that this widely distributed tree has been met with near Port Douglas.

CALOTIS, R. Br.

SECTION ACANTHARIA.

C. porphyroglossa, *F. v. M.*, Fl. Austr. iii. 505. (The name referring to the purple rays of flower.) A hispid annual, with erect or ascending stems of about 4 to 5 in. Leaves cuneate or the lower ones petiolate and spathulate, deeply toothed or almost lobed, the upper ones small and narrow. Involucres 2 to 2½ lines diameter, the bracts narrow and acute. Ray-florets purple, numerous, very narrow. Fruiting-heads about 4 lines diameter. Achenes shortly hirsute, bordered by rather broad wings, densely ciliate on the edge, but without the long plumose hairs of *C. plumulifera*. Pappus of numerous barbed awns, unequal but all shorter than the achene.—Fl. Austr., l.c.

Hab.: Mandangi, Georgina River.—*E. J. Whelan*.

LETT SOMIA, Roxb.

(After John Coakley Lettsom, M.D., F.S.A.)

Sepals orbicular, elliptic, or oblong, in fruit often somewhat thickened or enlarged. Corolla tubular-funnel-shaped; limb plicate, lobes usually shallow. Stamens included or exerted; anthers oblong or linear, never twisting. Ovary 2-celled, 4-ovuled; disk annular, usually prominent; style filiform; stigmas 2, subsessile, globose. Fruit

indehiscent. Seeds 4 or 1. Scandent more or less hairy shrubs. Leaves alternate, undivided, base often rounded or cordate. Cymes axillary, peduncled, densely corymbose or capitate, bracteate.—*C. B. Clarke* in Hook. Fl. Brit. Ind. iv. 191.

L. Soutteri (n. sp.) (After Wm. Soutter, the energetic secretary and manager of the Queensland Acclimatisation Society.) A climbing plant with white silvery terete or nearly terete stems. Leaves from oblong-lanceolate and $2\frac{1}{2}$ in. long, to ovate-cordate and exceeding 6 in. in length, and more or less acuminate, upper surface glabrous and green, under surface silvery white, the primary veins prominent on both sides, 7 to 9 pairs, petioles 1 to $2\frac{1}{2}$ in. long, grooved. Peduncles about as long as the petioles, bearing a head of few white-coloured flowers; bracts ovate, densely clothed with long silky hairs. Sepals about $\frac{1}{2}$ -in. long, ovate, glabrous on the inner surface, silky on the outer. Corolla about 1 in. long, the diameter of expanded flower rather above 1 in., lobed more than half-way down, lobes silky-hairy except the infolded margins. Stamens much shorter than the lobes of the corolla, hairy at the base. Disk prominent. (Near *L. aggregata*, Roxb.)

Hab.: Johnstone River.

This plant was received by Mr. Wm. Soutter, the manager of the Queensland Acclimatisation Society, about three years ago, attached to the stem of a fern-tree from the Johnstone. The plant is growing at Bowen Park, and the above description has been drawn up from the first flower it has put forth. I have placed it in the above genus from the ovary examined appearing rather 2 than 4-celled. The plant, however, in some respects approaches *Argyreia splendens*, Sweet, and *A. acuta*, Lour.; thus, when more flowers and ripe fruit are obtained, it may have to be placed in *Argyreia*.

GREVILLEA, R. Br.

SECTION CALOTHYRSUS.

G. heliosperma, R. Br. in Trans. Linn. Soc. x. 176; Fl. Austr. v. 457; Fragm. vi. 210. A tree of about 20 ft. with dense head of foliage, the young shoots minutely silvery or fulvous-pubescent, the adult foliage glabrous and more or less glaucous. Leaves once or twice pinnate, the segments not very numerous, oblong-lanceolate, obtuse, flat, 3 to 5 in. long, tapering at the base and often petiolulate, triplinerved or penniveined with few almost longitudinal primary veins and numerous almost longitudinal reticulations conspicuous on both sides, the whole leaf 6 to 12 in. long. Racemes very loose, secund, 2 to 4 in. long, terminal or lateral, often branched but shorter than the leaves. Perianth deep-red or scarlet, glabrous outside as well as the whole inflorescence, bearded inside below the middle, the tube fully 4 lines long, dilated towards the base, somewhat contracted upwards and much revolute under the obliquely globular limb. Torus very oblique and narrow, 3 lines long. Gland adnate, scarcely prominent. Ovary glabrous, stipitate at the upper end of the torus; style longish, red, green near the apex; stigmatic disk very oblique or lateral, very convex. Fruit nearly globular, oblique, 1 in. diameter, with very thick hard valves. Seeds broadly winged all round.—*Benth.*, Fl. Austr., l.c.

Hab.: Westmoreland, Burketown.—*J. B. Macintosh*.

LIST OF ILLUSTRATIONS.

Figures of the undermentioned plants are placed at the end of this supplement, the notices of which will be found in the various parts of the work indicated.

	Syn.	Ql.	Fl.
	Page.		
LYCOPODIUM CERNUUM	...	...	673
LYCOPODIUM LATERALE	...	...	673
SELAGINELLA PREISSIANA	...	...	673
TRICHOMANES PELTATUM	...	...	685
TRICHOMANES YANDINENSE	...	...	686
TRICHOMANES JAVANICUM	...	...	686
TRICHOMANES PARVIFLORUM	...	...	687
DAVALLIA TRIPINNATA	...	...	693
POLYPODIUM SIMPLICISSIMUM	...	...	716
	1st Suppl.		
SELAGINELLA AUSTRALIENSIS	...	...	62
SELAGINELLA BAKERIANA	...	...	62
SELAGINELLA BRISBANENSIS	...	...	62
TRICHOMANES JOHNSTONENSE	...	...	63
TRICHOMANES FILICULA	...	...	63
ASPENIUM RESECTUM, VAR. AUSTRALIENSE	...	...	64
	2nd Suppl.		
TRICHOMANES CAUDATUM	...	...	66
	3rd Suppl.		
VALLISNERIA GRACILIS	...	...	70
TRICHOMANES PROLIFERUM	...	...	88
TRICHOMANES BARNARDIANUM	...	...	89
HYMENOPHYLLUM TRICHOMANOIDES	...	...	90
VITTARIA WOOROONORAN	...	...	92
ASPENIUM HOOKERIANUM, VAR.	...	...	93
ASPIDIUM RAMOSUM, VAR. LINEARE	...	...	93
POLYPODIUM ALBOSETOSUM	...	...	94
ANISOTHECIUM PYCNOGLOSSUM	...	...	95
TREMATODON BAILEYI	...	...	96
LEUCOBRYUM VESICULOSUM	...	...	96
SCHLOTHEIMIA BAILEYI	...	...	97
PTEROBRYUM (TRACHYLOMA) RECURVULUM	...	...	98
METEORIUM (PAPILLARIA) SIGMATOPHYLLUM	...	...	98
RHAPHIDOSTEGIUM OVALE	...	...	99
ENOSMOLEJEUNEA BAILEYANA	...	...	101
PLAGIOCHILA BAILEYANA	...	...	102
PLAGIOCHILA ARBUSCULA	...	...	102
SCHISTOCHEILA CRISTATA	...	...	104

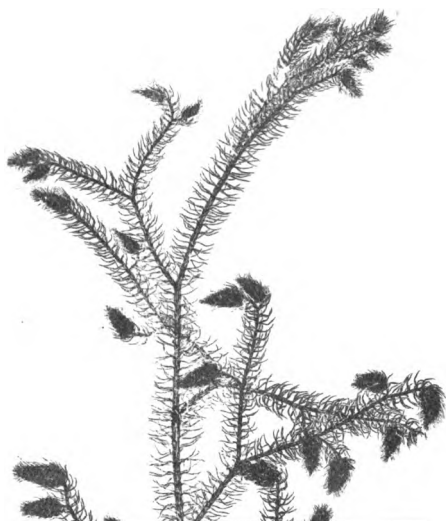
INDEX.

* * The Orders are printed in SMALL CAPITALS, and the Genera and Vernacular Names incidentally mentioned in Italics.

	Page.		Page.		Page.
Acacia	21	Bolbitius	117	Collema	106
Acianthus	74	Boletus	118	Cololejeunea	101
Acrolejeunea	101	BORAGINÆ	48	Commersonia	10
Agaricus	113	Brachycome	34	COMPOSITÆ	33
Agrostis	84	Bruchia	95	CONVOLVULACEÆ	49
Ailographum	125	Bruguiera	26	Coprinus	117
<i>Albizia</i>	23	Bryum	97	Corchorus	10
Aleurodiscus	121	Bulbophyllum	72	Corticium	121
Alpinia	76			Corysanthes	74
<i>Alpinia</i>	124			<i>Craspedia</i>	40
Alsophila	91	Caladenia	74	<i>Crinum</i>	126
AMARANTACEÆ	54	Calandrinia	7	Crinum	76
Amarantus	54	Calicium	106	CRUCIFERÆ	6
AMARYLLIDÆ	78	<i>Callistemon</i>	125	Cryphæa	98
Ambrosia	40	Callitriche	25	<i>Cucurbit</i>	126
Ammannia	28	Callopiasma	109	CUCURBITACEÆ	29
AMPELIDÆ	16	Calocephalus	39	Cupania	16
ANACARDIACEÆ	17	Calotis	35, 129	Cyanocarpus	60
<i>Ancura</i>	100	CAMPANULACEÆ	46	Cyathula	54
<i>Angianthus</i>	40	Campylopus	96	Cyathus	122
Anisacantha	58	Cantharellus	117	<i>Cycas</i>	126
Anisothecium	95	Capnodiastrum	125	CYPERACEÆ	80
ANONACEÆ	5	Capnodium	125	Cyperus	80
<i>Anthistiria</i>	123	CAPPARIDÆ	6	Cyrtandra	51
Anthracotheceum	113	Capsella	6		
APOCYNACEÆ	46	Carica	28	Dampiera	43
Aralia	31	Cassia	20	<i>Darlingia</i>	64
ARALIACEÆ	31	<i>Castanospermum</i>	125, 127	Davallia	91
<i>Argyrea</i>	49, 130	Casuarina	70	<i>Delarbrea</i>	31
Aristotelia	10	CASUARINÆ	70	Dendrobium	71
Arthonia	111	CELASTRINÆ	14	Dendroceros	100
Arthopyrenia	112	CENTROLEPIDÆ	79	Denhamia	14
Ascidium	111	Centrolepis	79	Derris	20
Aspidium	93	Cephalozia	100	Dichopogon	77
Asplenium	92	Ceratogyne	41	Dicranum	95
Asterella	100	Cerebella	123	Didymium	123
Asterina	125	Chaetomitrium	99	DILLENIACEÆ	5
Asteroma	126	Chamaeraphis	83	Dimeria	83
Atriplex	56	Chara	105	Diplachne	85
Australina	69	CHARACEÆ	104	Dipodium	73
		CHENOPODIACEÆ	55	Dracophyllum	45
Bacularia	77	Chenopodium	56		
Bæckea	26	Chiloglottis	75	Ectropothecium	98
Balantiopsis	100	Chlorosplenium	124	Elatine	7
Bambusa	87	Cirrhopetalum	73	ELATINÆ	7
<i>Bathurst Burr</i>	40	Cissus	16	<i>Elm</i>	127
Bauera	24	Citrus	12	Endiandra	59
Bazzania	100	Cladonia	106	Enhalus	70
Bergia	7	Cladosporium	127	Enosmolejeunea	101
Blechnum	92	Clathroporina	112		
Blepharocarya	17	Clathrus	122		
		Cocculus	6		

	Page.		Page.		Page.
Entodon ...	98	Hedyotis ...	33	Lobelia ...	44
EPACRIDÆ ...	44	Helichrysum ...	38	LOGANIACEÆ ...	47
Epipogum ...	75	Helicia ...	61	Lomatia ...	64
Eragrostis ...	86	Heliotropium ...	48	LORANTHACEÆ ...	65
Eremophila ...	52	Helminthocarpon ...	111	Loranthus ...	65
Eriachne ...	85	<i>Hemp Agrimony</i> ...	34	Lycoperdon ...	122
Eritrichium ...	48	HEPATICEÆ ...	100	Lyonsia ...	46
Ethulia ...	33	<i>Heteropogon</i> ...	123	Lysurus ...	121
Eucalyptus ...	27	Hibbertia ...	5	LYTHRARIÆ ...	28
Eupatorium ...	34	Hibiscus ...	9		
Euphorbia ...	65	Holomitrium ...	96	Macromitrium ...	97
EUPHORBIACEÆ ...	65	Hookeria ...	97	Macrosporium ...	127
Evodia ...	12	Hydnum ...	120	Mæsa ...	45
		HYDROCHARIDÆÆ ...	70	MALVACEÆ ...	8
		Hydrolejeunea ...	101	<i>Mango</i> ...	126
		Hymenophyllum ...	90	<i>Mangosteen</i> ...	8
Fabronia ...	99	Hypoxylon ...	124	Marasmius ...	117
Fagraea ...	47	Hyptiandra ...	12	Marchantia ...	102
FICOIDÆÆ ...	30			Mastigobryum ...	102
Ficus ...	68			Mastigolejeunea ...	102
<i>Ficus</i> ...	125	Indigofera ...	19	Melanothea ...	112
Figs ...	125	Ipomæa ...	49	MELIACEÆ ...	13
FILICES ...	88	Irpex ...	120	Melicope ...	11
Fimbraria ...	101	<i>Isachne</i> ...	82	Meliola ...	125
Fimbristylis ...	80	Isopogon ...	59	<i>Melon</i> ...	126
Fissidens ...	99	Isopterygium ...	98	Melothria ...	30
Flemingia ...	19	Ithyphalkus ...	122	MENISPERMACEÆ ...	6
Fomes ...	119			Meteorium ...	98
Frullania ...	101	Jungermannia ...	101	<i>Metrodideros</i> ...	28
Fuligo ...	122			Minuria ...	35
FUNGI ...	113			Mirbelia ...	18
Fusicolla ...	126			<i>Mitrephora</i> ...	6
		Kleinhowia ...	129	Mollugo ...	30
<i>Gambier</i> ...	32	Kochia ...	57	Monarda ...	53
Ganophyllum ...	13	Koeleria ...	86	Monotoca ...	44
Garcinia ...	8	Kunzea ...	26	Morinda ...	33
GESNERACEÆ ...	51			MUSCI ...	95
Glæosporium ...	126	LABIATÆ ...	53	Musgravea ...	64
Glossostigma ...	50	Lachnocladium ...	121	Mutinus ...	121
Glyceria ...	87	LAURINÆÆ ...	59	MYOPORINÆÆ ...	52
Glyphis ...	112	Lecanora ...	109	<i>Myosotis</i> ...	48
<i>Gnaphalium</i> ...	41	Lecidia ...	109	Myriocephalum ...	127
Gnephosis ...	38	Lea ...	16	MYRSINÆÆ ...	45
Gomphrena ...	55	LEGUMINOSÆ ...	18	MYRTACEÆ ...	26
Goodenia ...	43	Lentinus ...	118	Myrtus ...	27
GOODENOVIÆÆ ...	42	Lenzites ...	118		
Gouania ...	15	Lepidozia ...	102	NAIADACEÆ ...	79
GRAMINÆÆ ...	82	Leptogium ...	106	Nardia ...	101
Grammitis ...	94	Leptolejeunea ...	102	<i>Nengella</i> ...	78
<i>Granddilla</i> ...	29	Leptomeria ...	65	Nephelium ...	17
Grandinia ...	120	Leptorhynchus ...	38	Nipa ...	78
Graphina ...	111	Leptospermum ...	27	Nitella ...	104
Graphis ...	111	<i>Leptospermum</i> ...	28	Notholaena ...	94
Grevillea ...	62, 130	Leptotrema ...	111		
GUTTIFERÆ ...	8	Leschenaultia ...	42	Oberonia ...	71
Gynandropsis ...	6	Lettsomia ...	129	Obryzum ...	106
		Leucobryum ...	96	Ocellularia ...	110
<i>Hair-trigger Plant</i> ...	42	Leucoloma ...	96	OLACINÆÆ ...	14
Hakea ...	63	Leucophanes ...	96	Ola ...	14
HALORAGÆÆ ...	24	Leucopogon ...	44	Oldenlandia ...	32
Haloragis ...	24	LICHENES ...	106	<i>Oleander</i> ...	126
Harpullia ...	17	LILIACEÆ ...	77		
<i>Hedraianthera</i> ...	15	<i>Lime</i> ...	12		

	Page.		Page.		Page.
Olearia ...	36	Pycnolejeunea ...	102	STYLIDIEÆ ...	42
Omphalea ...	67	Pyrenula ...	113	Stylidium ...	42
Opilia ...	14	Pyxine ...	108	<i>Styphelia</i> ...	45
ORCHIDÆ ...	71			STYRACEÆ ...	46
Orites ...	61			Symplocos ...	46
		Radula ...	103	Swainsona ...	19
<i>Palm</i> ...	126	Ramalina ...	107	Symphyogyna ...	103
PALMÆ ...	77	Ratonia ...	16	Synoum ...	13
PANDANACEÆ ...	79	Rhagodia ...	55		
Pandanus ...	79	RHAMNÆ ...	15	<i>Tamarind</i> ...	123, 126
Panicum ...	82	Rhamphicarpa ...	50	<i>Tambor</i> ...	68
Pannaria ...	109	Rhaphidostegium ...	99	Templetonia ...	18
Parmelia ...	108	Rhizogonium ...	97	<i>Terra japonica</i> ...	32
Paspalum ...	82	RHIZOPHORACEÆ ...	26	Thelotrema ...	111
Passiflora ...	28	Rhynchostegium ...	99	Threlkeldia ...	58
PASSIFLORACEÆ ...	28	Ricasolia ...	108	Thuidium ...	99
<i>Pawpaw</i> ...	127	Riccia ...	103	TILIACEÆ ...	10
<i>Pawpaw (See Carica)</i> ...	28	Rose ...	126	Tilmadoche ...	123
Paxillus ...	117	Rosellina ...	126	Tinospora ...	6
Peltigera ...	106	RUBIACEÆ ...	31	Todea ...	88
Peniophora ...	121	Russula ...	117	Tomasellia ...	112
Persoonia ...	60	RUTACEÆ ...	11	Trachymene ...	31
Pertusaria ...	109			Trematodon ...	96
Peziza ...	123	SANTALACEÆ ...	65	Tremella ...	121
Phæotrema ...	110	SAPINDACEÆ ...	16	Trichocolea ...	104
Phebalium ...	11	Sarcomitrium ...	100	Trichoderma ...	127
Pholidia ...	52	Sarcoxyton ...	125	Trichomanes ...	88, 89
Phoma ...	126	SAXIFRAGEÆ ...	24	<i>Trichomanes</i> ...	91
Phyllanthus ...	66	Scævola ...	43	Trichosanthes ...	29
Phyllochora ...	124	Schistocheila ...	104	Trichosteleum ...	99
Phyllogonium ...	98	Schlotheimia ...	97	Tricorynes ...	77
Physcia ...	108	Schaenus ...	81	Triglochin ...	79
Piper ...	59	SCITAMINEÆ ...	76	Triraphis ...	86
PIPERACEÆ ...	59	Scleria ...	81	Tristichocalyx ...	6
Plagiochila ...	102	Scleroderma ...	122		
<i>Platanus</i> ...	126	Sclerosena ...	58	<i>Ulmus</i> ...	127
Pluchea ...	37	SCROPHULARINEÆ ...	50	UMBELLIFERÆ ...	31
Poa ...	126	Senecio ...	42	Uncaria ...	31
Podocoma ...	36	Septoria ...	126	Unonia ...	5
Podolepis ...	40	<i>Serjania</i> ...	127	Uromyces ...	123
Polyalthia ...	6	Setaria ...	83	URTICACEÆ ...	68
Polypodium ...	93	Sida ...	8	Usnea ...	107
Polyporus ...	119	SIMARUBEÆ ...	12	Uvaria ...	5
Polystictus ...	120	<i>Snakewood</i> ...	47		
Porella ...	103	SOLANACEÆ ...	49	Vallisneria ...	70
Porina ...	112	Solanum ...	49	Valsa ...	125
Porospermum ...	31	Solenia ...	120	Vitis ...	16
PORTULACÆÆ ...	7	Sorghum ...	84	Vittaria ...	91
Prasophyllum ...	73	Sphærophoron ...	106		
Prostanthera ...	53	Sphærostilbe ...	124	<i>Wattles</i> ...	123
PROTEACEÆ ...	59	Steetzia ...	103	Weisia ...	96
Pseudanthus ...	66	Sterculia ...	9	Westringia ...	54
Psoroma ...	108	STERCULIACEÆ ...	9	Wonuy ...	23
Pterigeron ...	37	Sticta ...	107		
Pteris ...	92	Stictina ...	107	<i>Xylaria</i> ...	124
Pterobryum ...	98	Stipa ...	84		
Ptycholejeunea ...	102	Strobilomyces ...	119	ZYGOPHYLLÆÆ ...	11
Ptychomnion ...	98	Stromella ...	124	Zygophyllum ...	11
Pultenæa ...	18	Strychnos ...	47		
<i>Pumpkin</i> ...	127	Stuartina ...	41		



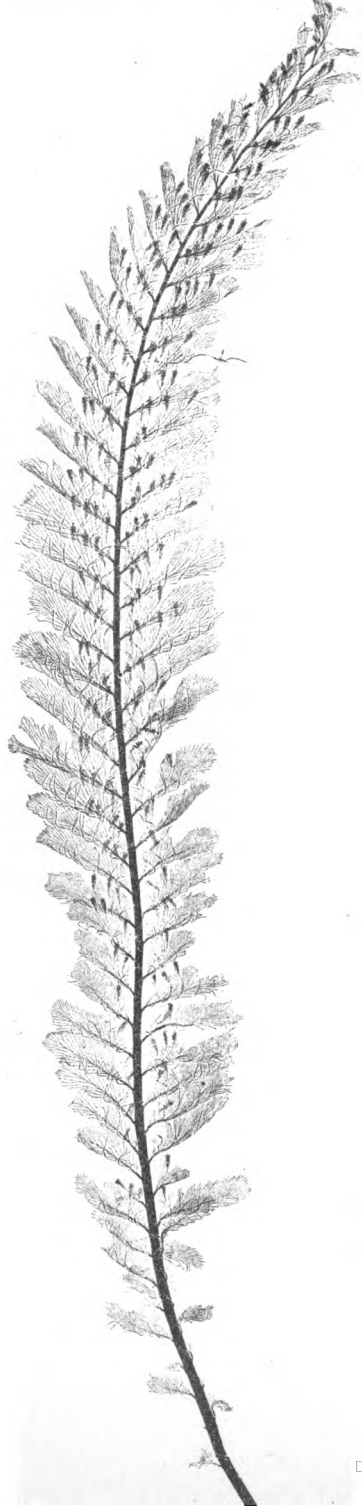




Trichomanes
Barnardianum

Trichomanes
peltatum







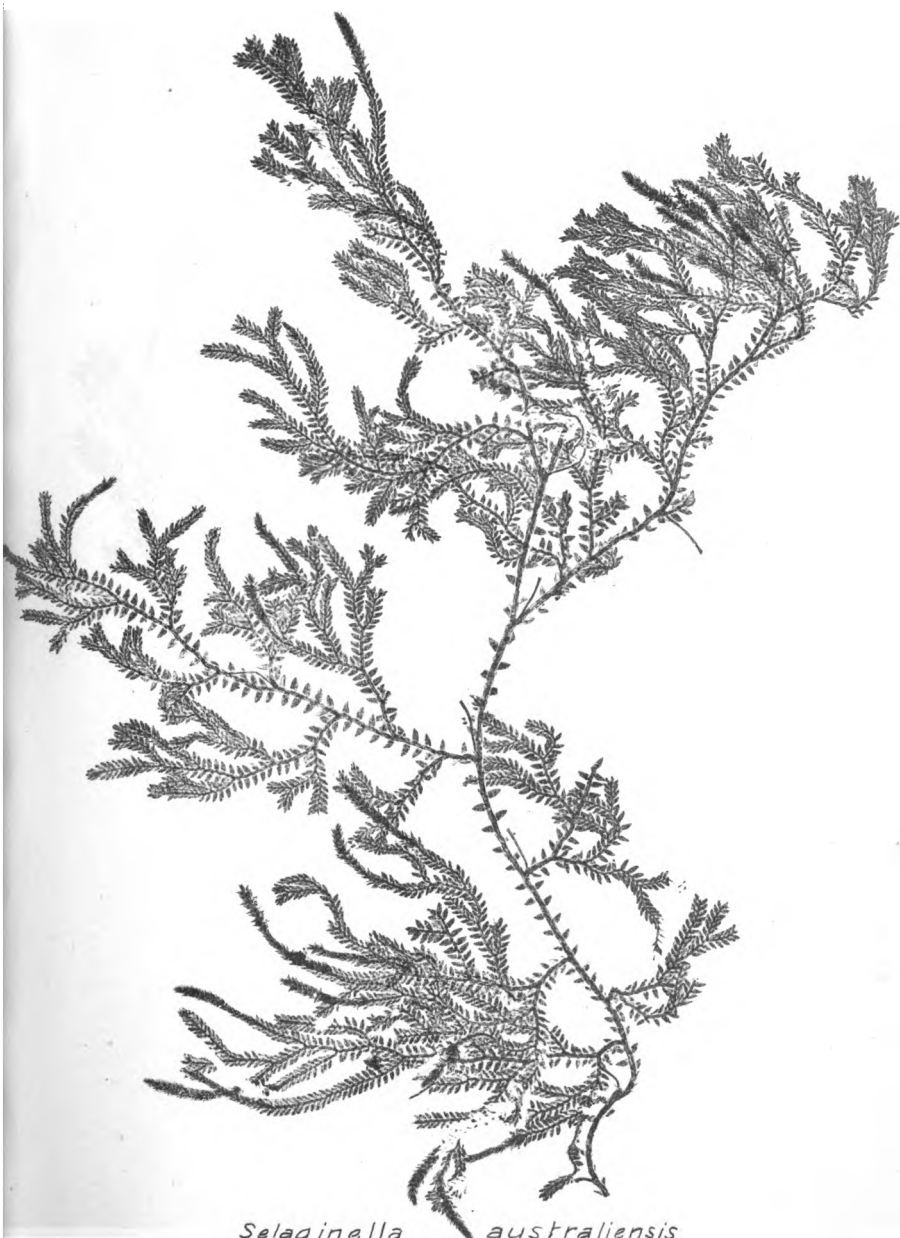
Trichomanes
parviflorum



Davallia triplinata



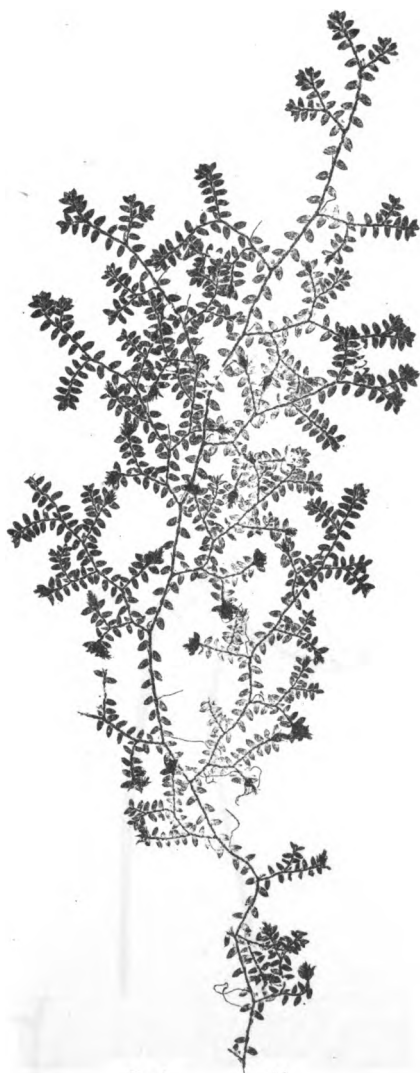
*Polypodium
simplicissimum*



Selaginella australiensis



Selaginella Bakeriana



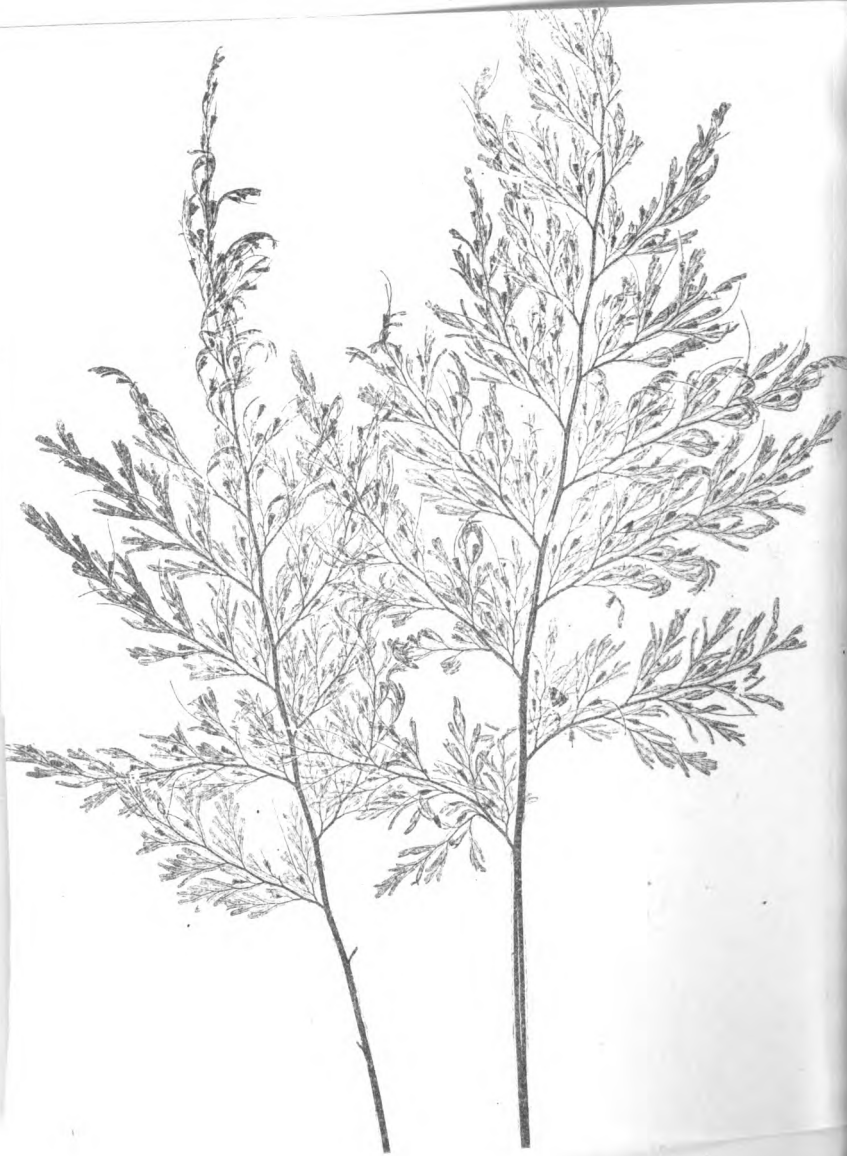
Selaginella
brisbanensis



Trichomanes johnstoneense

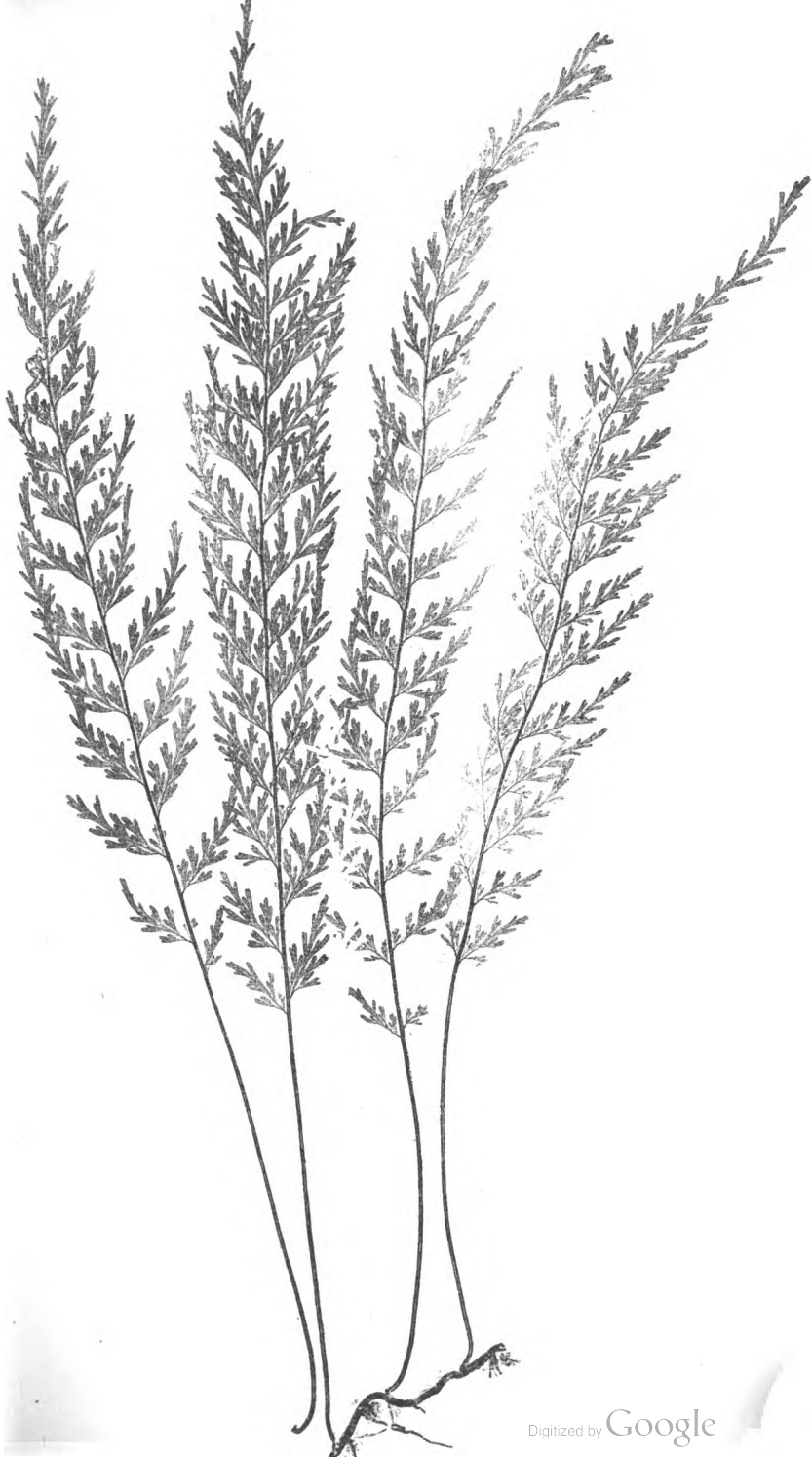


Trichomanes Filicula





Trichomanes Filicula

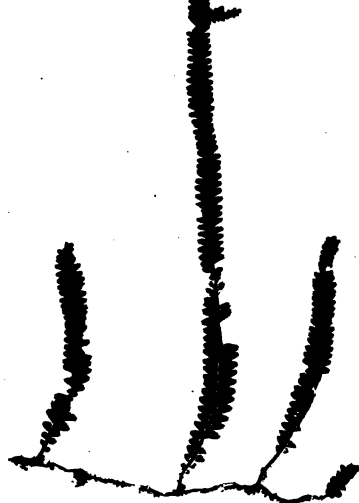




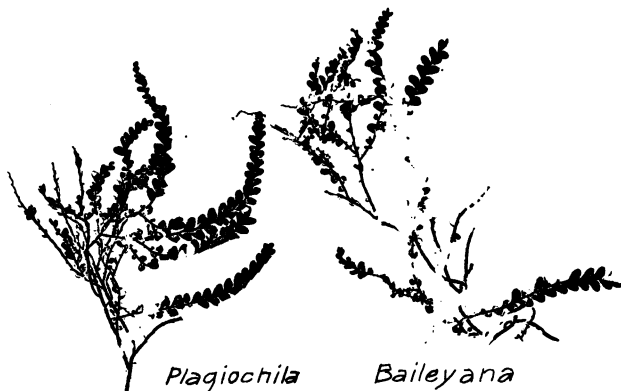
aracilis



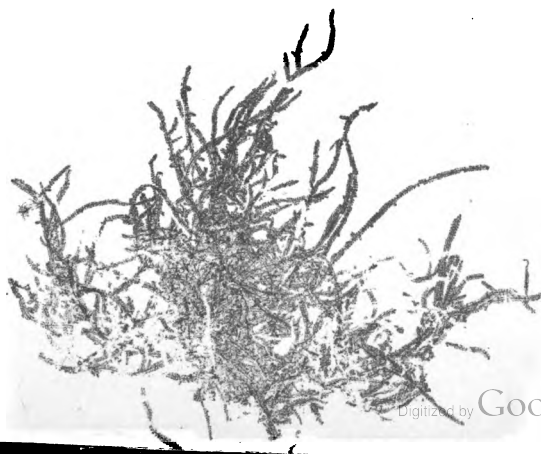
*Trichomanes
proliferum*



Plagiochila arbuscula



Plagiochila Baileyana





Hymenophyllum

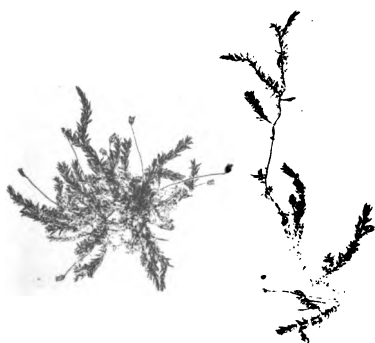
trichomanoides



Vittaria woorroonooron



Polypodium albosetosum



*Rhabdostegium
ovale*



Schlotheimia

Baileyi



Asplenium Hookerianum
var.





*Leucobryum
vesiculosum*



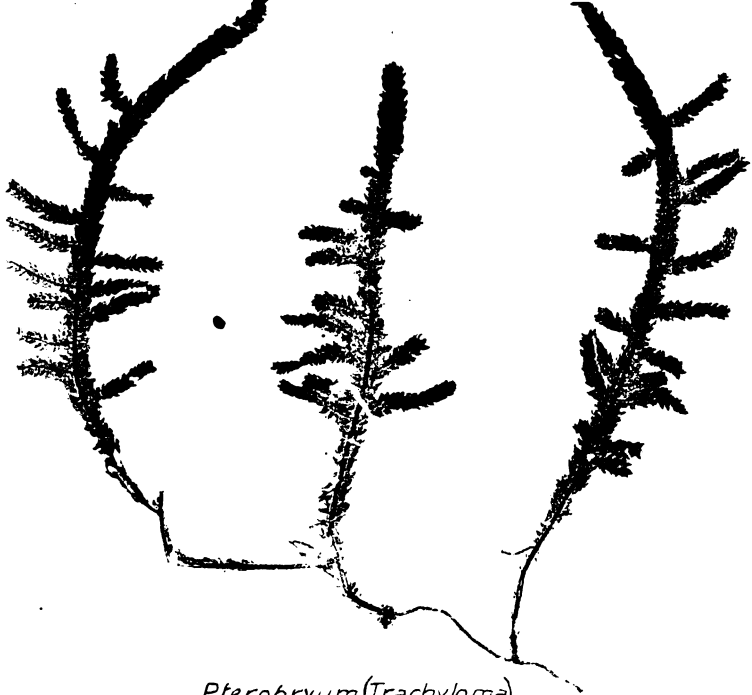
*Schistocheila
cristata*



*Anisothecium
pycnoglossum*



*Trematodon
Baileyi*



Pterobryum (Trachyloma)
recurvulum



